SEGA

VIRTUA COP 2

U/R TYPE

OWNER'S MANUAL

BEFORE USING THE PRODUCT, BE SURE TO READ THE FOLLOWING:

To ensure the safe usage of the product, be sure to read the following before using the product. The following instructions are intended for the owners, operators and the personnel in charge of the operation of the product. After carefully reading and sufficiently understanding the instructions, handle the product appropriately.

Herein, explanations which require special attention are enclosed with dual lines. Depending on the potentially hazardous degrees, terms of WARNING!, CAUTION! and IMPORTANT! are used. SEGA is not liable whatsoever, even during the Liability period, for any injury or damage caused by the usage in the manner counter to the instructions herein stated. In order to prevent accidents, warning stickers and printed instructions are applied to the places where a potentially hazardous situation relating to the product can occur. For safety cause, be sure to comply with such warnings.

WARNING! Indicates that mishandling the product by disregarding this warning will cause a potentially hazardous situation which can result in death or serious injury.

CAUTION! Indicates that mishandling the product by disregarding this caution will cause a potentially hazardous situation which can result in personal injury and or material damage.

STOP — IMPORTANT! This is cautionary information which should be complied with when handling the product. Indicates that mishandling the product by disregarding this will cause a potentially hazardous situation which might not result in personal injury but can damage the equipment, etc.

O Be sure to turn off power before working on the machine.

To prevent electric shock, be sure to turn off power before starting the work in which the worker touches the interior of the product. If the work is to be performed in the power-on status, the Instruction Manual herein always states to that effect.

O Be sure to ground the Earth Terminal (this, however, is not required in the case where a power cord with earth is used).

This product is equipped with the Earth Terminal. When installing the product, Connect the Earth Terminal to the "accurately grounded indoor earth terminal" by using an earth wire. Unless the product is grounded appropriately, the user can be subject to electric shock. After performing repair, etc. for the Control equipment, be sure to firmly connect the Earth Wire to the Control equipment.

O Ensure that the Power Supply used is equipped with a Circuit Protector.

This product does not incorporate the Circuit Protector. Using a power supply which is not equipped with the Circuit Protector can cause a fire when short circuit occurs.

O Be sure to use fuses which meet the specified rating.

O Specification changes (removal of equipment, conversion and addition) not designated by SEGA are not allowed.

The parts of the product include warning labels for safety, covers for personal protection, etc. It is very hazardous to operate the product by removing parts and or modifying the circuits. Should doors, lids and protective parts be damaged or lost, refrain from operating the product. SEGA is not liable whatsoever for any injury and or damage caused by Specification changes (using other firm's parts, or by conversion) not designated by SEGA.

O **Ensure that the product is of appropriate Electrical Specifications.**

Before installing the product, check for Electrical Specifications. SEGA products have a name-plate on which Electrical Specifications are described. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location.

O **Install and operate the product in places where appropriate lighting is available, allowing warning labels to be clearly read.**

To ensure safety for the customers, labels and printed instructions describing potentially hazardous situation are applied to places where accidents can be caused. Ensure that where the product is operated has sufficient lighting allowing the warnings to be read. If any label is peeled off, apply it again immediately.

O **When handling the Monitor, be very careful. (Applies only to the product w/ monitor).**

Some of the monitor (TV) parts are subject to high tension voltage. Even after turning off power, some portions are still subject to high tension voltage sometimes. Monitor repair and replacement should be performed only by those technical personnel who have knowledge of electricity and technical expertise.

In the case where commercially available monitors and printers are used in this product, only the contents relating to this product are explained herein. Some commercially available equipment has functions and reactions not stated in this manual. Read this manual together with the specific Instruction Manual of such equipment.

* Descriptions herein contained may be subject to improvement changes without notice.
* The contents described herein are fully prepared with due care. However, should any question arise or errors be found, please contact SEGA.

INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION.

Normally, at the time of shipment, SEGA products are in a status allowing for usage immediately after transporting to the location. Nevertheless, an irregular situation may occur during transportation. Before turning on power, check the following points to ensure that the product has been transported in a satisfactory status.

☐ Are there any dented portions or defects (cuts, etc.) on the external surfaces of the cabinet?

☐ Are Casters and Leg Adjusters damaged?

☐ Do the power supply voltage and frequency requirements meet with those of the location?

☐ Are all wiring connectors correctly and securely connected? Unless connected in the correct direction, connector connections can not be made accurately. Do not insert connectors forcibly.

☐ Are all IC's of each IC BD firmly inserted?

☐ Do power cords have cuts and dents?

☐ Do the fuses used meet specified rating? Is the Circuit Protector in an energized status?

☐ Are such units as Monitors, Control equipment, IC BD, etc. firmly secured? Are all Earth Wires connected?

☐ Are all accessories available?

☐ Can all Doors and Lids be opened with the Accessory keys? Can Doors and Lids be firmly closed?

CONTENTS

```
+-------------------------------------------------------------+
|                   SPECIFICATIONS                            |
|                                                             |
|   Insallatin Space:        800mm x 1,120mm (31.5in x 44.1in)|
|                                                             |
|   Height:                  1.87 m (73.6in)                  |
|   Weight:                  165 kg (363.3lbs)                |
|   Power, Max. Current:     1.2A 288Watts at 240V            |
|                            1.3A 288Watts at 220V            |
|                                                             |
|                                                             |
|                                                             |
|   For TAIWAN               N/A                              |
|   Powre, Current           N/A                              |
|                                                             |
|   Monitor:                 N/A                              |
+-------------------------------------------------------------+
```

NOTE: Descriptions in this manual are subject to change without prior notice.

INTRODUCTION TO THIS OWNERS MANUAL.

SEGA ENTERPRISES LTD, supported by its high electronic technology of LSI's, microprocessors, etc. and with with a wealth of experience, has for more that 30 years been supplying various innovative and popular game machines to the world market. This Owners Manual is intended to provide detailes descriptions together with all the necessary information covering the general operation of electronic assemblies, electromechanicals, servicing control, spare parts, etc. as regarda VIRTUA COP 2, a new SEGA product.
This manual is intended for those who have a knowledge of electricity and technical expertise especially in IC's, CRT's, microprocessors, etc. Carefully read this manual to acquire sufficent knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under ne circumstances to the interior systems.. Should such a situation arise immediately contact our main office or the naerest branch office listed below;

SEGA ENTERPRISES EUROPE LIMITED/AMUSEMENT MACHINE SALES DIVISION
Unit 2 Industrial Estate, Leigh Close, New Malden, Surrey KT3 3NL, England
PHONE: 0181 336 1222
FAX: 0181 336 1715

SEGA SOUTHERN EUROPE LIASON OFFICE
Calle Vallellano, 19-23, 1 A,37008-Salamanca, Spain.
PHONE: 923 265893
FAX: 923 265913

1. HANDLING AND INSTALLATION PRECAUTIONS

When installing or inspecting the machine, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.
This Game is designed for indoor use only. The game must NOT be installed outdoors or under the following conditions:

1. In areas directly exposed to sunlight, high humidity, dust, excessive heat or extreme cold.
2. In locations that would present an obstacle in the case of an emergency i.e. near fire equipment or emergency exits.
3. On an unstable surface or suject to vibrations.

IMPORTANT.
Ensure that the line voltage matches that of the transformer input tapping. Please note the voltage that the machine has been set to during manufacture. This information is located on the rear of the machine.
Be sure to switch the power OFF before replacing any user servicable parts.
Do NOT attempt to repair the PCB (Printed Circuit Board) yourself as this will void the warranty. The PCB contains static sensitive components that could be damaged. Always return a faulty PCB to your distributor.
When removing the plug from a mains outlet always grasp the plug and not the cable.
Do not use a fuse that does not meet a specified rating.
Make sure all connections are secure before restoring power.

> Ensure that the mains lead is not exposed. If the mains lead becomes exposed there is a danger of an electric shock or a short circuit
> Ensure that the power supply is fitted with a circuit protector. Using the power supply without a circuit protector is a fire hazard.

2. PREVENTION OF COUNTERFEITING OR CONVERSION

- ## LABELLING

To prevent counterfeits or conversions, the folowing labels are put on all SEGA products. When handling such goods be sure to confirm that the labels are present. They are used to prevent unlawful acts such as the unauthorised copying of the products and the PCB's or carrying on business by manufacturing similar items or by converting, selling or using such products or PCB's.

The following seal is put on all machines manufactured by SEGA

SEGA
オリジナル
ORIGINAL SEAL
THIS PRODUCT IS DESIGNED
AND MANUFACTURED BY
ORIGINAL =
VIRTUA COP 2
NO. 11891
SEGA ENTERPRISES LT
JAPAN

ORIGINAL SEAL

- ## COPYRIGHT NOTICE

  This SEGA product has the copyright notice as follows:

  ©SEGA 1995

  This signifies that this work was disclosed in 1995 and is the property of SEGA ENTERPRISES LTD.

3. ACCESSORIES

When Transporting the machine ensure that the following parts are supplied;

Seq No.	Part Number	Description	Qty
1	DO0047	OWNERS MANUAL VCOP2 UK	1
2	540-0006-01	WRENCH M4 TMP PRF	1
3	540-0007-01	WRENCH M5 TMP PRF	1
4	509-5080UK	SW MICRO TYPE	1
5	OS1019	SELF SEAL BAG 9X12.3/4	1
6	LT1006	LAMP WEDGE 12V 1.2W	1
7	EP1007	FUSE 5A 250Vac 20mm SB	1

- TOOL

(Tamperproof Wrench)
M4 540-0006-01
M5 540-0007-01
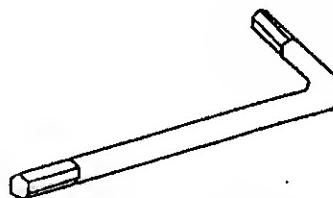
FIG. 6 TAMPERPROOF WRENCH

4. PRECAUTIONS WHEN ASSEMBLING AND MOVING GAME

WARNING:
- Perform the assembly work by folloeing the procedure stated. Failing to comply with these instructions, for example, inserting the plug into an outlet at the wrong stage may cause an electric shock.

When carrying out the assembly work, follow the procedure in the following 4-item sequence.

1. SECURING IN PLACE
2. POWER SUPPLY CONNECTION
3. ASSEMBLY CHECK

1 SECURING IN PLACE (LEG ADJUSTER ADJUSTMENT)

> **WARNING!**
> Make sure that all of the leg adjusters are in contact with the floor. If they are not, the cabinet may move and cause an accident.

This machine has 4 each of casters and leg adjusters (FIG. 6. 1). When the installation position is determined, cause the leg adjusters to come into contact with the floor directly, make adjustments in a manner so that the casters will be raised approximately 5 mm. from the floor and make sure that the machine position is level.

① Move the machine to the installation position.

② Cause all of the leg adjusters to make contact with the floor. By using a wrench, make adjustments in the height of the leg adjusters to ensure that the machine's position is level.

③ After making adjustments, fasten the leg adjuster nut upward and secure the height of the leg adjuster.
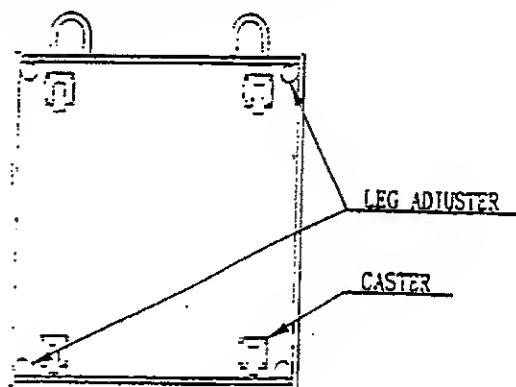
FIG. 6. 1 BOTTOM VIEW
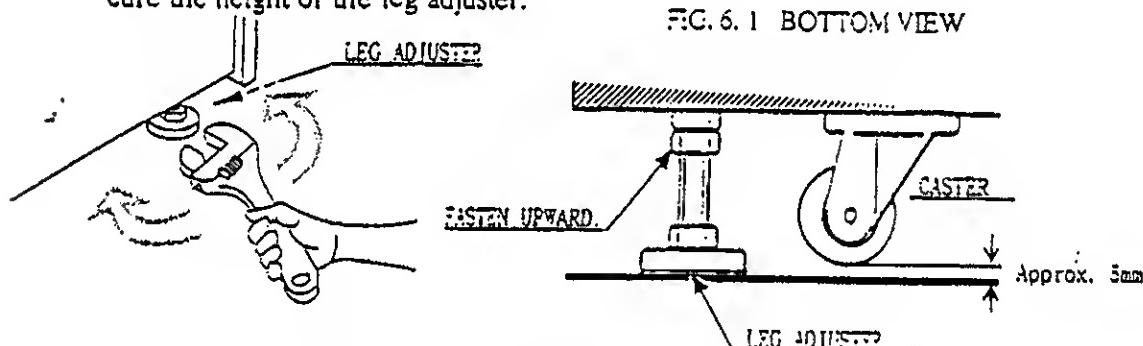
FIG. 6. 2 LEG ADJUSTER

2 POWER SUPPLY, AND EARTH CONNECTION

> **CAUTION!**
> Ground the EARTH TERMINAL (this, however, is not required in the case where a power cord plug with earth is used). Check to make sure that the power cord or the ground wire is not exposed on the surface (floor, ground, etc.) where it may be dangerous.

SWITCH

SOCKET

FUSE HOLDER
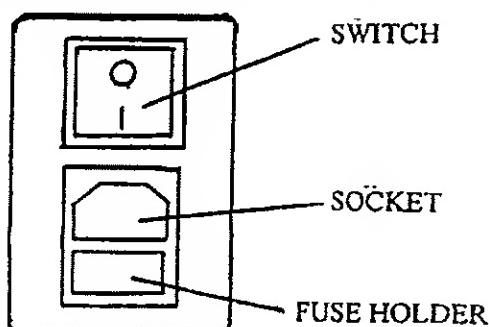
FIG. 6. 3 AC UNIT

The AC UNIT is located on back side of the CABINET. By using an earth wire, connect the AC UNIT EARTH TERMINAL and the securely grounded indoor EARTH TERMINAL.
For POWER ON. turn the AC UNIT's MAIN SW on.

In the TEST MODE, ascertain that the assembly has been made correctly and IC BD. is satisfactory (refer to Section 8).
In the test mode, perform the following test:

```
                    MEMORY TEST
ROM
IC:   6 GOOD    IC:  7 GOOD    IC:  8 GOOD
IC:   9 GOOD    IC: 10 GOOD    IC: 11 GOOD
IC:  12 GOOD    IC: 13 GOOD    IC: 14 GOOD
IC:  15 GOOD
RAM
IC:  45 GOOD    IC: 46 GOOD    IC: 47 GOOD
IC:  48 GOOD    IC: 49 GOOD    IC: 50 GOOD
IC:  54 GOOD    IC: 55 GOOD



        TEST : TO EXIT
```
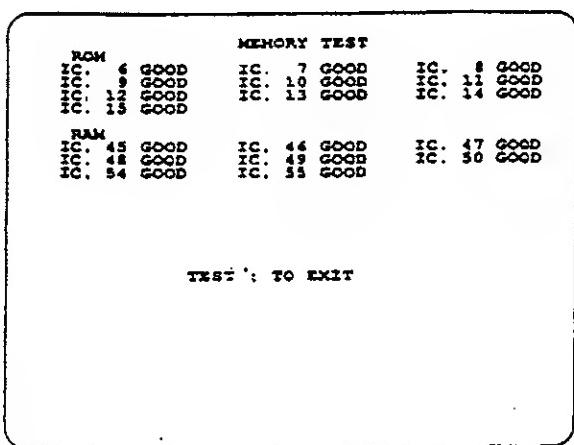
Selecting the MEMORY TEST on the test mode menu screen causes the on-board memory to be tested automatically. The game board is satisfactory if the display beside each IC No. shows GOOD.

```
            INPUT TEST
    CHUTE #1   OFF    CHUTE #2   OFF
    START1     OFF    START2     OFF
    TEST-SW    OFF    SERVICE-SW OFF
    TRIGGER1   OFF    TRIGGER2   OFF



    TEST & SERVICE : TO EXIT
```
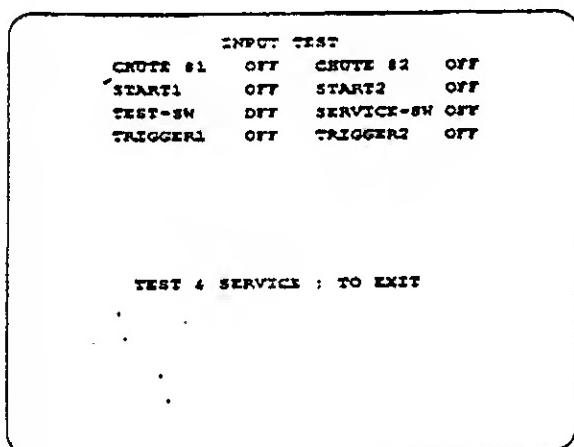
Selecting the INPUT TEST on the test mode menu screen causes the screen (on which each switch and the encoder are tested) to be displayed. Press each switch. For the coin switch test, insert a coin from the coin inlet with the coin chute door being open. If the display beside each switch indicates "ON." the switch and wiring connections are satisfactory.

```
        GUN SETTING
     GUN MARK CHECK
   PLAYER1 GUN ADJUSTMENT
   PLAYER1 GUN DEFAULT ADJUSTMENT
   PLAYER1 GUN MANUAL ADJUSTMENT
   PLAYER2 GUN ADJUSTMENT
   PLAYER2 GUN DEFAULT ADJUSTMENT
   PLAYER2 GUN MANUAL ADJUSTMENT
>> EXIT


   SELECT BY SERVICE BUTTON
   AND PUSH TEST BUTTON
```
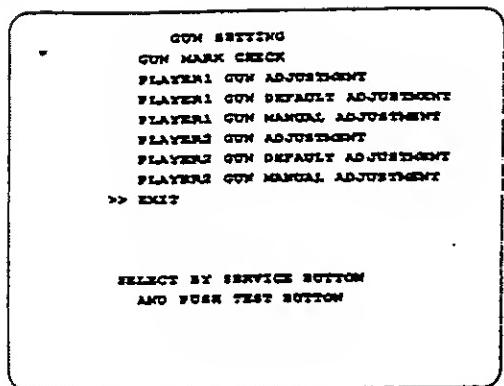
On the menu screen in the test mode, selecting GUN SETTING displays the screen on which gun sighting is set. Check to see if there is any problem for playing game.

```
        OUTPUT TEST
         CRT SIZE
         CRT COLOR
         LAMP
      >> EXIT









   SELECT BY SERVICE BUTTON
   AND PUSH TEST BUTTON
```
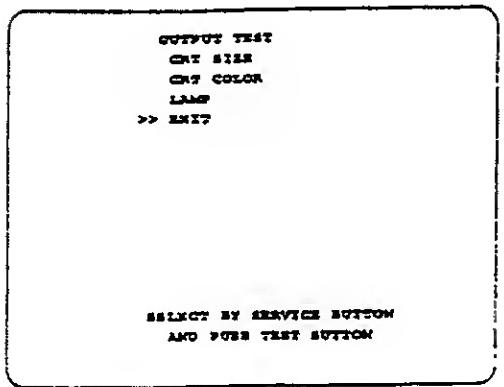
In the TEST mode menu, selecting OUTPUT TEST allows the screen, on which the monitor or lamp is tested, to be displayed. Although the monitor adjustments have been made at the time of shipment from the factory, make judgment (by watching the test mode screen) as to whether an adjustment is needed. If it is necessary, adjust the monitor by referring to Section 11.

In the LAMP TEST mode, carry out the lamp test to ascertain that each lamp lights up satisfactorily.

```
        SOUND TEST
          AUTO
          SE1
          SE2
          SE3
          SE4
          SE5
          SE6
          SE7
          BGM

      >> EXIT

   SELECT BY SERVICE BUTTON
   AND PUSH TEST BUTTON
```
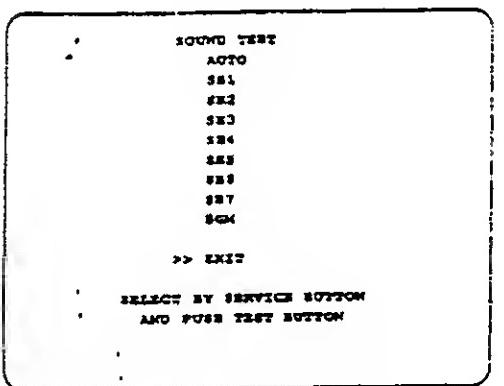
In the TEST mode, selecting SOUND TEST causes the screen, on which sound related BD and wiring connections are tested, to be displayed. Be sure to check if the sound is satisfactorily emitted from each speaker and the sound volume is appropriate.

Perform the above inspections also at the time of monthly inspection.

MOVING THE MACHINE

Since the weight of this machine is approximately 165 kgs., its leg adjusters should be retracted when moving the machine over the floor.
In the case where there is a sharp difference in the surface level, be sure to hold the catch and or bottom when lifting the cabinet. Lifting the cabinet by holding other portions may cause the cabinet and parts to be damaged.

## 5. HOW TO PLAY '

```
CONTENT OF GAME AND HOW TO PLAY
```

① Inserting a coin(s) causes the credit display on the bottom of the screen to count.
Inserting one credit worth coin(s) changes the message on the bottom of the screen
from "INSERT COIN(S)" to "PUSH START" and both of the start buttons light up.
The maximum number of credits counted at a time is 9. Any coin inserted after
counting 9 credits will not be counted as any credits, nor be returnable. These coins,
however, will count as coins inserted in bookkeeping and the coin meter.
Note that game setting to USA allows up to 24 credits to be counted.

② Pressing either of the start buttons determines which side (left or right) you are
playing on. Pressing the start button causes the STAGE SELECT screen to appear.
There are 3 stages, i. e., BEGINNER (stage 1), MEDIUM (stage 2) and EXPERT
(stage 3) to choose from. Shoot to select the desired stage. If no desired stage is
selected, BEGINNER will be chosen automatically to start.
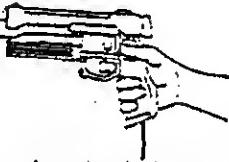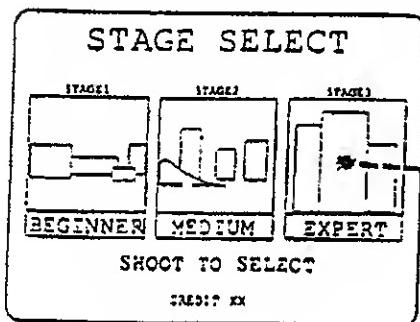
Shoot to select the desired stage.

③ When the game starts, the player's mission and boss character are introduced.

• The life points and the number of bullets of the left-hand side player (1P) are displayed
on the lower left-hand side of the screen, and those of the right-hand side player (2P), on
the lower right-hand side of the screen.

• The LOCK-ON SIGHT indicates the enemy character who is firing at the player. If the
sight turns red, the enemy fires at the player and he loses one life point.

If the sight turns red, the enemy fires
at the player.

LOCK-ON SIGHT
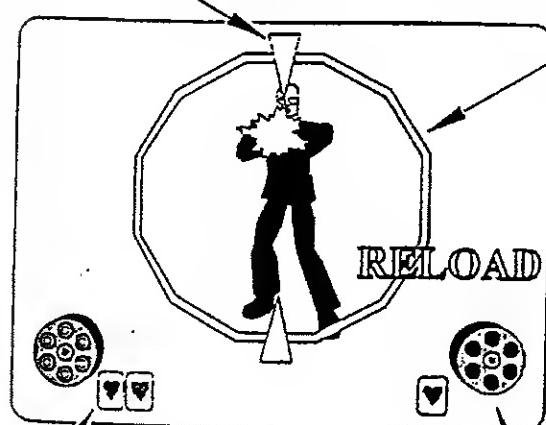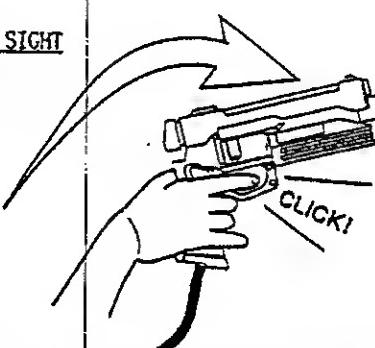
RELOAD

When your gun runs out of ammo, point outside the
screen and pull the trigger to reload.

When the life point becomes
zero, the game is over.

The loaded status of ammo is shown
by cartridges in the cylinder.

- The player loses one life point if he shoots a hostage by mistake.

- The gun holds 6 bullets. When it runs out of ammo, "RELOAD" is displayed on the screen. At this time, point outside the screen and pull the trigger to reload. Note that by using the DIP SW, the reload setting can be changed to AUTO RELOAD (refer to Section 15).

- The enemy's hand grenades, axes, rocket bombs, fire bombs, etc., can be shot down for your defense.

- Shooting the background causes Special Items to appear. Capturing an item by shooting strengthens your weapon or recovers life points (explanations as regards the items are given later).

- When the life point becomes zero, the game is over.

- Downing the boss character awaiting you at each stage results in clearing that particular stage. The player can not defeat the boss until his life meter becomes zero.

④ If you would like to join in the game at anytime while the other person is playing, insert a coin(s) and press the start button. Also, when credits allowing the game to be played still remain, the start button on the other side will keep flashing. The player can participate in the game by pressing the flashing button.

⑤ When the life point becomes zero, if you want to continue, insert a coin(s) required to continue and press the start button. If credits allowing the player to continue still remain, you can continue by merely pressing the start button.

⑥ At the time of game over, if the player's score ranks 10th or higher, his name can be entered.

MACHINE GUN
Holds 30 bullets. Can be repeatedly fired by keeping the trigger pulled. This can not be reloaded. Running out of ammo, or being damaged by the enemy causes the machine gun to become an ordinary gun.

RIFLE
Holding 24 bullets, this allows for 3 consecutive shoots every time the trigger is pulled. It can not be reloaded. Running out of ammo, or being damaged by the enemy causes the rifle to become an ordinary gun.

AUTOMATIC
Holding 15 bullets, this allows for reloading. When damaged by the enemy, this becomes an ordinary gun.
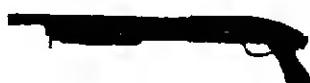
SHOT GUN
Holds 6 bullets. Having a large "HIT" determining range, this allows you to shoot the enemy easier. It allows for reloading. When damaged by the enemy, it becomes an ordinary gun.

MAGNUM GUN
Holds 6 bullets. Allows you to hit the enemy through an obstacle. Can be reloaded. When damaged by the enemy, it becomes an ordinary gun.

LIFE
The life point increases by one, provided however that the life points in total do not exceed 10.

Depending on items, when a certain item is already strengthened, shooting another may cause such strengthened item to become another item.

KNACK OF EARNING A HIGH SCORE:

● ACCURATELY SHOOT AT THE HEAD OR CHEST.

In each stage, enemy characters other than the boss can be downed by hitting any part of the body. When a bullet hits any portion other than the head or chest, a hit or not must be determined. Until such time that a hit or not is determined, shooting at the character that appears behind the opponent who was previously shot will result in shooting the previously shot character again instead. On the other hand, if any character is shot in the head or chest, he will be downed by single shot and in this case, there will be no need for hit determination, thus making it easy to shoot the enemy behind. The higher the stage level is, the more important the shooting accuracy becomes.

● FORESEEING THE ENEMY APPEARANCE POSITION

The enemy marked with the LOCK-ON SIGHT is the only one that fires at you. To forecast the enemy's appearance position, pay attention to the direction in which the sight moves. Since their appearance pattern is the same every time, you could master a knack of play by learning such pattern through repeated game play.

6.TEST MODE

Selection of TEST ITEMS

1) Push the TEST SW (Located on the VTS Bracket) to cause the following TEST ITEM MENU to appear:

```
TEST MENU

BOOKKEEPING
GAME SYSTEM
COIN ASSIGNMENT
INPUT TEST
OUTPUT TEST
GUN SETTING
SOUND TEST
MEMORY TEST
BACKUP RAM CLEAR
EXIT


SELECT BY SERVICE BUTTON
AND PUSH TEST BUTTON
```
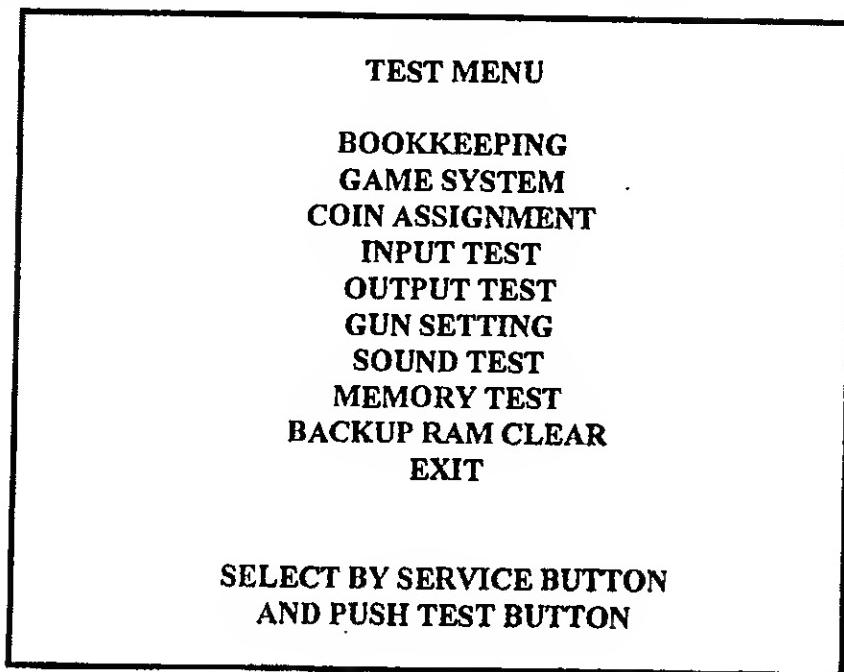
2) By pushing the service sw, bring the arrow marker to the desired item and press the TEST button

3) When the test has been completed, bring the arrow marker to the EXIT selection and push the TEST button

I. BOOKKEEPING

This area keeps a record of the coins inserted into the machine and the games played.

```
                    BOOKKEEPING

           COIN CHUTE # 1          0
           COIN CHUTE # 2          0
           TOTAL COINS            0


           COIN CREDITS            0
           SERVICE CREDITS         0
           TOTAL CREDITS           0


           NUMBER OF GAMES         0


       TOTAL TIME          0D  0H0M0S
       GAME PLAY TIME      0D  0H0M0S
       AVERAGE GAME TIME        0M0S
       LONGEST GAME TIME        0M0S
       SHORTEST GAME TIME       0M0S


               TEST TO EXIT
           SERVICE TO NEXT PAGE
```

```
            TOTAL PLAY GAMES          0 GAMES

            CONTINUE GAMES            0 GAMES
            P1 GAMES                  0 GAMES
            P2 GAMES                  0 GAMES

            TWO PLAYER RATE           0 %


            SERVICE TO OTHER PAGE
```

This mainly checks if the operation of the game board is correct, allows monitor colour adjustment and allows for coin and game assignment alterations.

2. GAME SYSTEM

This screen is used to alter the parameters of the game itself, i.e. difficulty, length, country etc.

```
┌─────────────────────────────────────┐
│          MENU OPTIONS                │
│                                      │
│          GAME SYSTEM                 │
│                                      │
│      ADVERTISE SOUND    ON           │
│      COUNTRY            EXP           │
│      CABINET           U/R           │
│      DIFFICULTY         HARD         │
│      LIFE               5            │
│      HUMAN TYPE        NORMAL        │
│      RELOAD TYPE       NORMAL        │
│                                      │
│      EXIT                            │
│                                      │
└─────────────────────────────────────┘
```

(A) ADVERTISE SOUND
This allows the advertise sound to be either on or off.

(B) COUNTRY
This allows the game to be set to one of three countries Japan, USA or Export.

(C) CABINET
In this game the cabinet type is set to U/R.

(D) DIFFICULTY
Sets the game to either EASY, NORMAL or HARD.

(E) LIFE
This is the number of life points that can be allocated, ranging from 1 to 9.

(F) HUMAN TYPE
Allows the enemy characters to be switched between robot or human.

(G) RELOAD TYPE
This sets the type of reload between normal and automatic.

3. COIN ASSIGNMENT

In this mode the COIN/CREDIT settings can be changed.

```
COIN ASSIGNMENT

CREDIT TO START        1 CREDIT(S)
CREDIT TO CONTINUE     1 CREDIT(S)

COIN CREDIT SETTING        #26

CHUTE #1      FREEPLAY

CHUTE #2      FREEPLAY


EXIT



SELECT BY SERVICE BUTTON
AND PUSH TEST BUTTON
```

(A) COIN CHUTE TYPE
This sets the type of coin mechanism used. Can be set to either COMMON or INDIVIDUAL.

(B) CREDIT TO START, CREDIT TO CONTINUE
Sets the credits required to start the game and then to continue playing.

(C) COIN/CREDIT SETTING
Stes the amount of credits given for each coin inserted. There are 26 settings, see the tables overleaf for the various settings.

4. INPUT TEST

This test screen displays the state of each switch.
If the switch goes "ON" when the switch is activated it is satisfactory.
The screen is set out like this;

```
                    INPUT TEST


       CHUTE 1    OFF        CHUTE 2    OFF
       START 1    OFF        START 2    OFF
       TEST SW    OFF        SERVICE    OFF
       TRIGGER 1  OFF        TRIGGER 2  OFF

          TEST AND SERVICE TO EXIT
```

5. DISPLAY TEST

RGB COLOUR ADJUSTMENT SCREEN

This screen allows for checking and adjusting the colour monitor and the BIAS and GAIN settings.

```
+----------------------------------------+
|                                        |
|            DISPLAY TEST                |
|                                        |
|               RED                      |
|                                        |
|              GREEN                     |
|                                        |
|               BLUE                     |
|                                        |
|              WHITE                     |
|                                        |
+----------------------------------------+
```
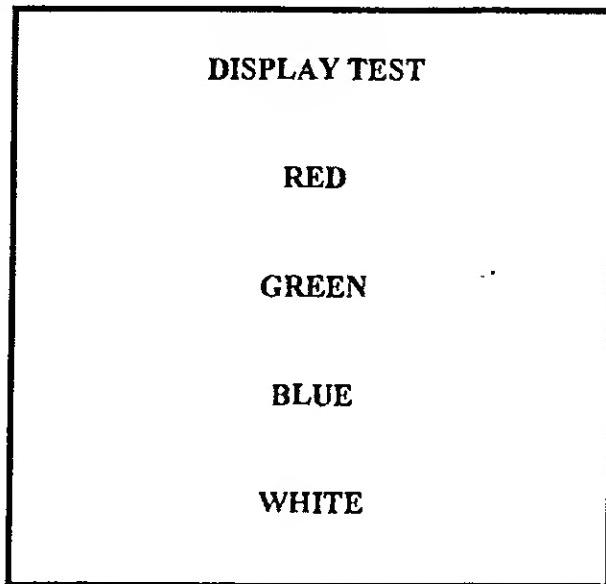
Each of the colours is darkest at the left-hand side of the screen and becomes lighter towards the right-hand side in 16 gradations. The monitor brightness is satisfactory if the white colour bar is black at the left-hand side of the screen and white at the right-hand side.

Use the test button to return to the OUTPUT TEST menu.

MONITOR SIZE ADJUSTMENT

This screen allows the monitor size to be checked.
Make the necessary adjustment to the size of the checkered portion using the controls detailed in the Monitor Information Section shown later in this manual.
Ensure that the checkered pattern does not go beyond the edge of the visible screen.

Use the test button to return to the OUTPUT TEST menu.

6. GUN SETTING

Select GUN SETTING and the following screen will appear

```
                    GUN SETTING
        GUN MARK CHECK
        PLAYER 1 GUN ADJUSTMENT
        PLAYER 1 GUN DEFAULT ADJUSTMENT
        PLAYER 1 GUN MANUAL ADJUSTMENT
        PLAYER 2 GUN ADJUSTMENT
        PLAYER 2 GUN DEFAULT ADJUSTMENT
        PLAYER 2 GUN MANUAL ADJUSTMENT
        EXIT


            SELECT BY SERVICE BUTTON
            AND PUSH TEST BUTTON
```
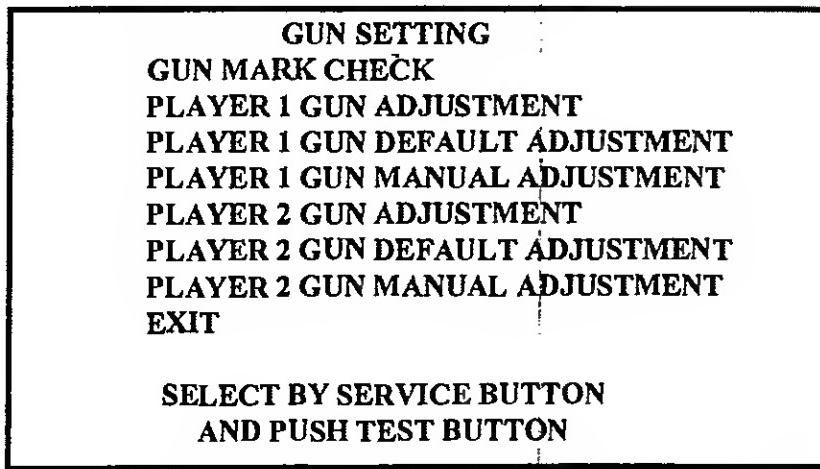
The screen shown above is the sighting adjustment menu. Press the service button to bring the arrow to the desired selection.
Press the test button to cause the following sighting check screen to appear.
Each gun has three different adjustment screens, adjustments for player 1 and 2 cannot be made on the same screen.

```
                    GUN MARK CHECKING

        IP1X = XXX                    IP2X = XXX
        IP1Y = XXX                    IP2Y = XXX

    AD1XMIN = XXX                AD2XMIN = XXX
      Y MIN = XXX                  YMIN = XXX
       XMAX = XXX                  XMAX = XXX
       YMAX = XXX                  YMAX = XXX


                    TEST TO EXIT
```
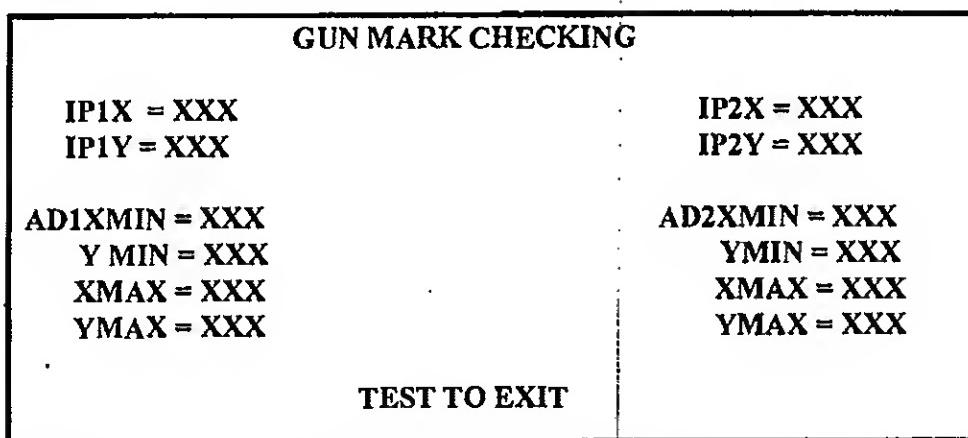
Seleecting GUN MARK CHECK causes the screen shown above to appear. Point the controller at the screen to have an impact mark appear on the screen. The position of the mark shows the point at which the gun is aimed. A blue mark is shown for player 1 while a red one is shown for player 2.

```
                PLAYER 1 GUN ADJUSTMENT

        [  ]  PLEASE SHOOT GRID WITH PLAYER 1 GUN




        PLEASE SHOOT GRID WITH PLAYER 2 GUN  [  ]
```
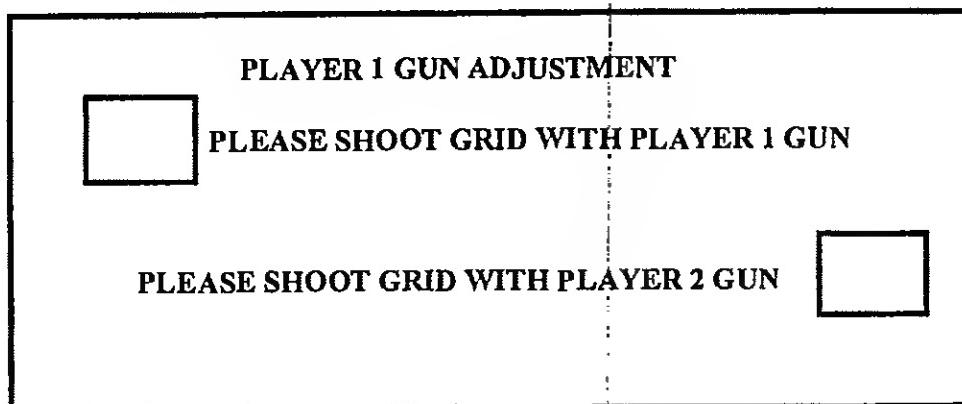
Selecting PLAYER 1 GUN ADJUSTMENT will display the screen shown above. The adjustments for 1P gun can be made on this screen. Shoot at the center of the grid in the upper left corner of the screen, this will cause another grid to appear in the opposite corner, shoot at this screen also.

After shooting at the two grids the gun mark checking screen will apear. This allows you to decide if the results of the previous operation were satisfactory.

By choosing the PLAYER 1 GUN DEFAULT ADJUSTMENT the gun sighting is reset to the initial factory setting. However due to changes occuring during shipment this setting may not be accurate. To reset to the initial setting press the test button. To return back to the sighting adjustment menu without altering anything press the service button.

```
┌─────────────────────────────────────────┐
│        PLAYER GUN MANUAL ADJUSTMENT       │
│                                           │
│            ADXMIN = XXX                   │
│            ADYMIN = XXX                   │
│            ADXMAX = XXX                   │
│            ADYMAX = XXX                   │
│            EXIT                           │
│                                           │
│         SELECT BY SERVICE BUTTON          │
│         PLAYER 1 START : INCREASE         │
│         PLAYER 2 START : DECREASE         │
└─────────────────────────────────────────┘
```
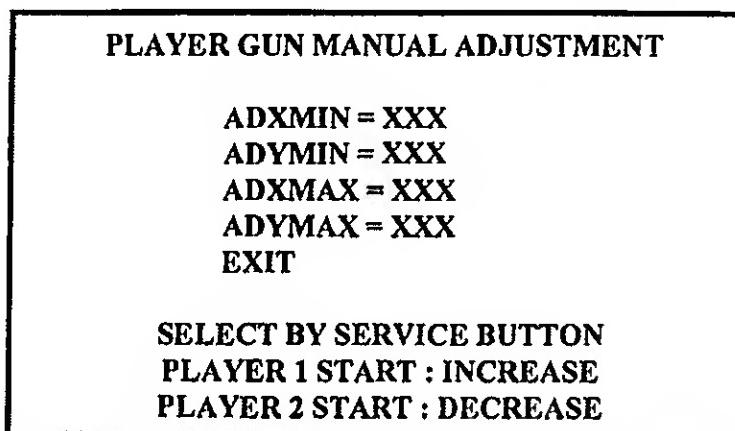
Selecting PLAYER GUN MANUAL ADJUSTMENT will cause the screen shown above to appear. In this screen the 4 adjustment values which determine sighting can be set. When setting each of these values follow the procedure explained below.

ADXMIN = XXX
Sets the value for the laet side of the screen. By pointing the gun at the lhs of the screen bring the impact mark to the left of the screen, press the 1P and 2P start buttons to adjust the value and move the impact mark slightly. Make adjustments so that the impact mark is at the very edge of the screen.

ADYMIN = XXX
Performs the same adjustment as the previous operation but for upper edgs of the screen.

ADXMAX = XXX
Does the same for the RHS of the screen.

ADYMAX = XXX
Does the same for the bottom of the screen.

All the operations described above should then be repeated for the 2P gun.

7. SOUND TEST

This test screen allows sound and background music used in the game to be checked.

1) Press the TEST button to have the following test menu appear on the screen.

```
                    SOUND TEST

                      AUTO
                       SE1
                       SE2
                       SE3
                       SE4
                       SE5
                       SE6
                       SE7

                       BGM

                      EXIT


            SELECT BY SERVICE BUTTON
             AND PUSH TEST BUTTON
```
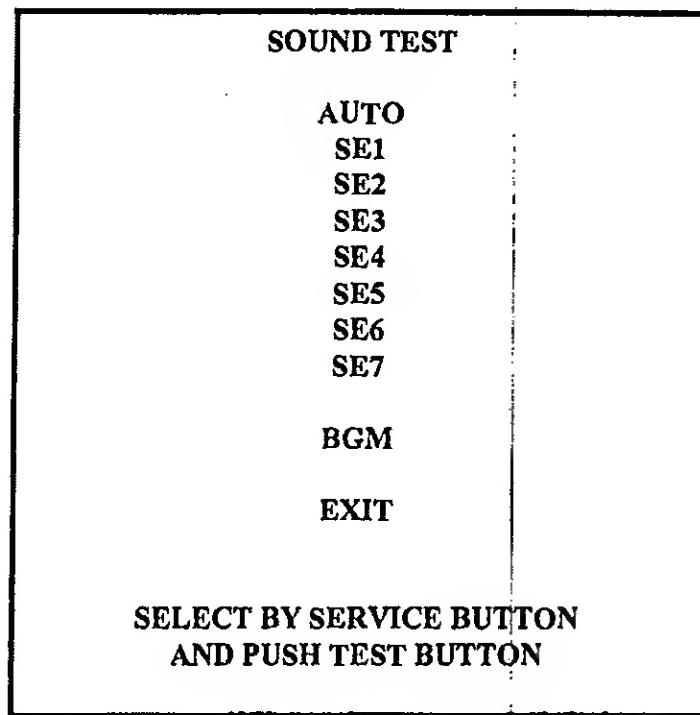
2) By pushing the service button the arrow marker will move through the selections, push the test button to choose a selection. A list of sounds will appear, push the service button to move throgh the list and the test button to hear each one, push the service button again to stop the sound and move on to the next one.

8.MEMORY TEST

This is used to chech the PCB's memory IC's.
When the IC is in good operating condition, "GOOD" will be displayed.
If there exists any malfunction in the IC's then "BAD" will be displayed.

MEMORY TEST		
ROM		
IC 7	IC 8	IC 9
IC10	IC11	IC 12
IC13	IC14	IC 15
IC16		
RAM		
IC 79	IC 80	IC 81
IC 82	IC 83	IC 84
IC 88	IC 89	
	TEST TO EXIT	

7. CONTROLLER (GUN)

In the cases where the controller's operation is not satisfactory or the controller sight deviates the direction in which the controller is pointed, it is possible that some maintenance may be required (the controller's interior parts may have been damaged). Replace the parts by disassembling the controller in the following procedure: Also, be sure to perform sighting check in the test mode when the controller parts are replaced.

9-1 REPLACING THE MICROSWITCH

① Disassemble the controller.

② Pull out the microswitch from COVER RIGHT.

③ Take out the microswitch by removing the soldering from it.

④ Solder the new microswitch and assemble the controller.

CAP NUT (9)
M3, black

COVER RIGHT

COVER LEFT

SENSOR UNIT

MICROSWITCH
509-5080

SCREW (3)
M3 x 8

SCREW (6)
M3 x 25
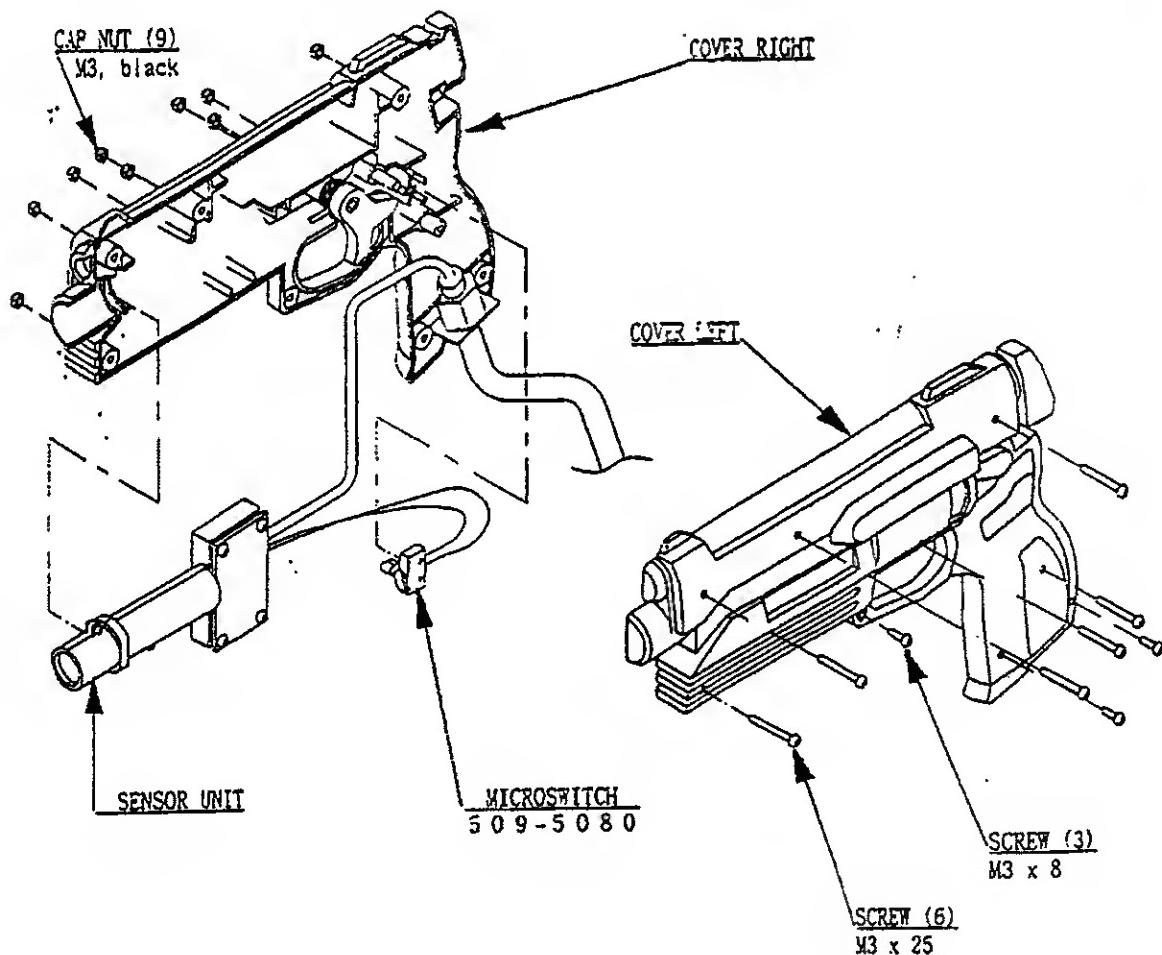
FIG. 9.1

9. BACKUP RAM CLEAR

This options allows the RAM contained on the game board to be cleared.

```
┌─────────────────────────────────┐
│       BACKUP RAM CLEAR          │
│                                 │
│             YES                 │
│                                 │
│             NO                  │
│                                 │
└─────────────────────────────────┘
```
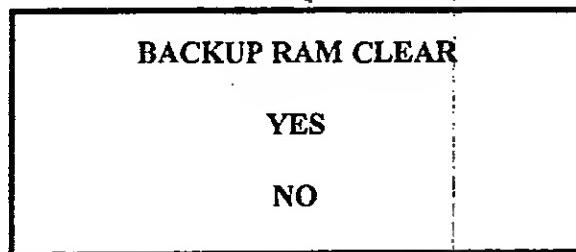
7-2 REPLACING THE SENSOR BOARD

The sensor board fits in between LENS HOLDER L and LENS HOLDER R. Replace the sensor board by disassembling sensor unit in the following procedure:

① Disassemble the controller.

② Remove the sensor unit from COVER R.

③ Take off the 2 tapping screws to remove LENS HOLDER L.

④ Take off the 4 tapping screws and remove the sensor board from LENS HOLDER R.

SENSOR BOARD
839-0717

LENS HOLDER R

CONNECTOR

TAPPING SCREW (4)
3 x 8

LENS HOLDER L

LENS
380-5003

TAPPING SCREW (2)
2.6 x 6
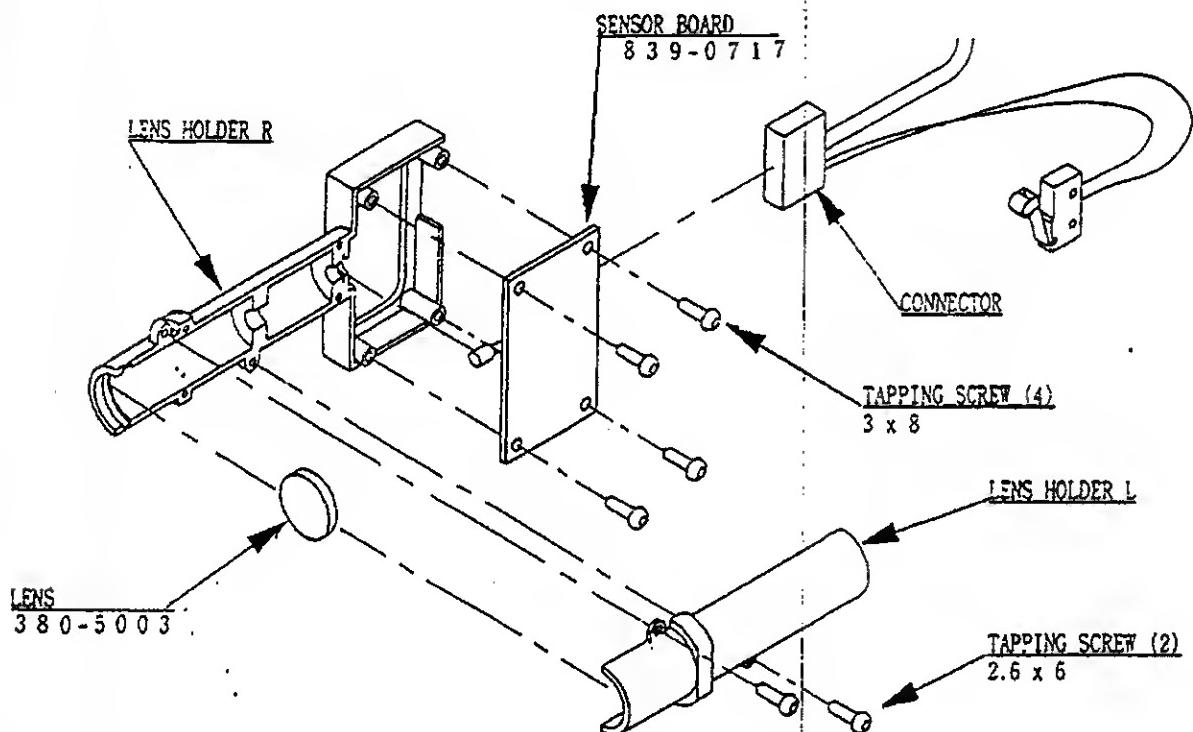
FIG. 9.2

8. MONITOR ADJUSTMENT

Remove the back door at the rear of the cabinet, and the monitor adjustment knob appears. When cleaning the CRT, be sure to turn the power switch off and then remove the back door.

① Take off the 2 tamperproof screws to remove the back door.

TAMPERPROOF SCREW (2)
M4×30
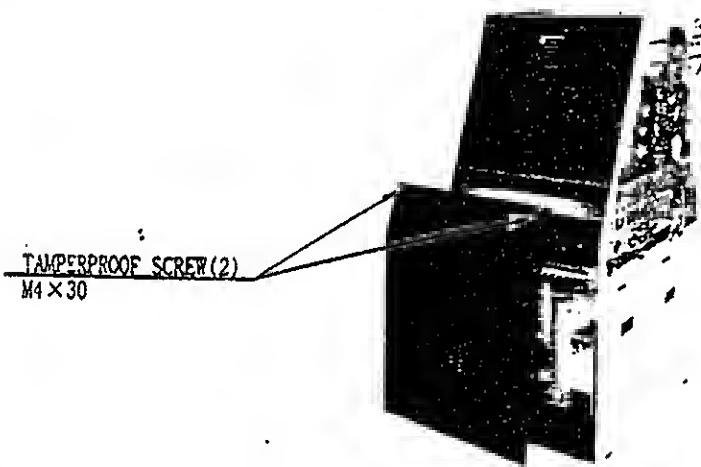
② There are two different manufacturers (NANAO and SANWA) for the 29 INCH MONITORs. Each of the manufacturers has their own adjustment method. Therefore, when making adjustments, ascertain the name of the maker by referring to the part No. below and follow the applicable method.

NANAO monitor: 2 0 0 — 5 2 4 2 — 2 4 — 0 5 (24K mode)

①	②	③	④	11		⑤	⑥	⑦	⑧	⑨	⑩
R-G	G-G	B-G	BRI	S.S		H.S	H.H	H.P	V.S	V.H	V.P
R-GAIN		B-GAIN		SS.SW		H. SIZE		H. POSI		V. HOLD	
	G-GAIN		BRIGHT				H HOLD		V.SIZE		V. POSI

-25-
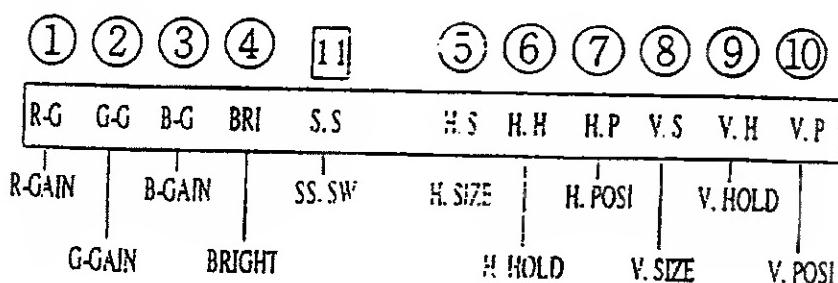
SANWA monitor: 2 0 0 — 5 2 4 3 — 2 4 — 0 1 (24K mode)

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
R GAIN	G GAIN	B GAIN	BRIGHT	H SIZE	H HOLD	H POSI	V SIZE	V HOLD	V POSI

① R-GAIN

② G-GAIN .... Controls colors.

③ B-GAIN

④ BRIGHT .... Controls screen brightness.

⑤ H. SIZE .... Controls horizontal screen size.

⑥ H. HOLD .... Provides horizontal synchronization. i.e.. controls right/left blurring of image.

⑦ H. POSI .... Controls horizontal display position on screen.

⑧ V. SIZE .... Controls vertical screen size.

⑨ V. HOLD .... Provides vertical synchronization. i.e. controls up-down scrolling of image.

⑩ V. POSI .... Controls vertical display position on screen.

11 SS. SW .... Controls the visual quality. (Only applies to Nanao.)
  A: Ordinary   B: Super-sharpness

12. REPLACEMENT OF FLUORESCENT LAMP

Replace the fluorescent lamp by taking off the related parts in the following procedure:

① Take off the 3 screws and remove either of BILLBOARD SASH (upper) or BILLBOARD SASH (lower).

② Take out the billboard from the cabinet and replace the fluorescent lamp (15w)
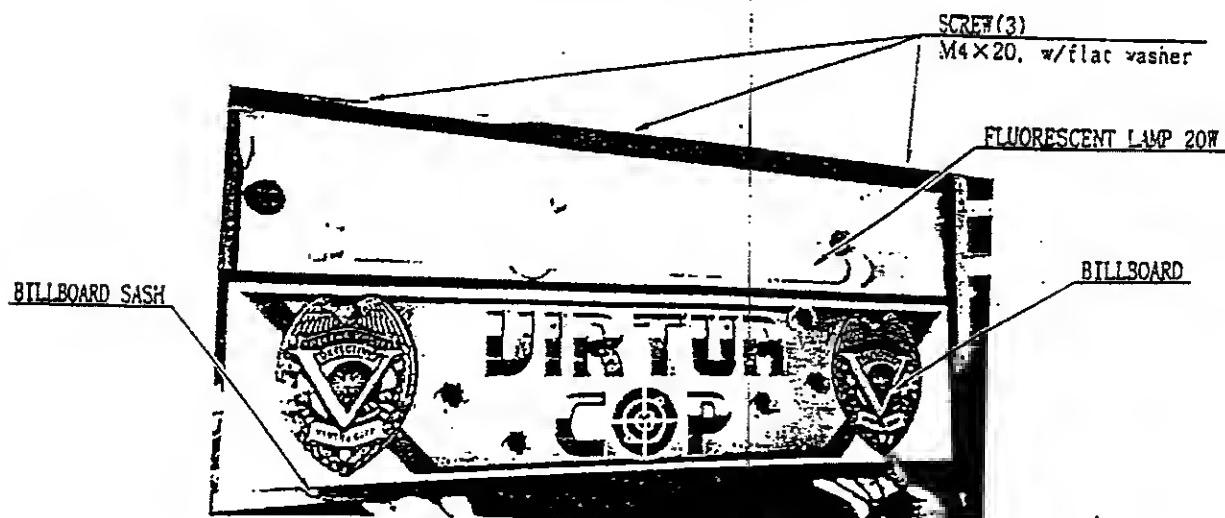
FIG. 12

9. PERIODIC INSPECTION TABLE

The items listed below require periodic check and maintenance to retain the performance of this machine and ensure safe operation.
When handling the controller, the player will be in direct contact with it . In order to always allow the player to enjoy the game, be sure to clean it regularly. Also, it is advisable to provide wet tissue, etc. available for player use.

ITEMS	DESCRIPTION	PERIOD	REFERENCE
CONTROLLER	Cleaning	As required	
	Sight check	Weekly	8
	Check SWes.	Monthly	8
COIN SELECTOR	Check COIN SWes.	Monthly	8
	COIN SELECTOR cleaning.	Trimonthly	1 0
MONITOR	C.R.T. cleaning.	Weekly	1 1
	Check adjustments.	Monthly	6 , 8 , 1 1
ONT GLASS, MIRROR	Cleaning	Weekly	See below.
GAME BD	Setting check	Monthly	8

CLEANING THE FRONT GLASS AND MIRROR:

When cleaning, be sure to comply with the following CAUTION and instructions so as to ensure that the front glass and mirror are not damaged.

```
CAUTION!
O  Use alcohol based cleaner (liquid).
O  Use a soft cloth.
O  When removing an attached large particle of dust (or foreign matter), do not rub with a
   cloth.
```

Remove the front glass when cleaning the front glass and mirror. First, remove GLASS HOLDER UPPER only. Then, put your hand through the square hole in the back side of GLASS HOLDER UPPER, and pull the front glass toward you.

GLASS HOLDER UPPER

TRUSS SCREW (3)
M5×16, black

FIG. 13

-27-
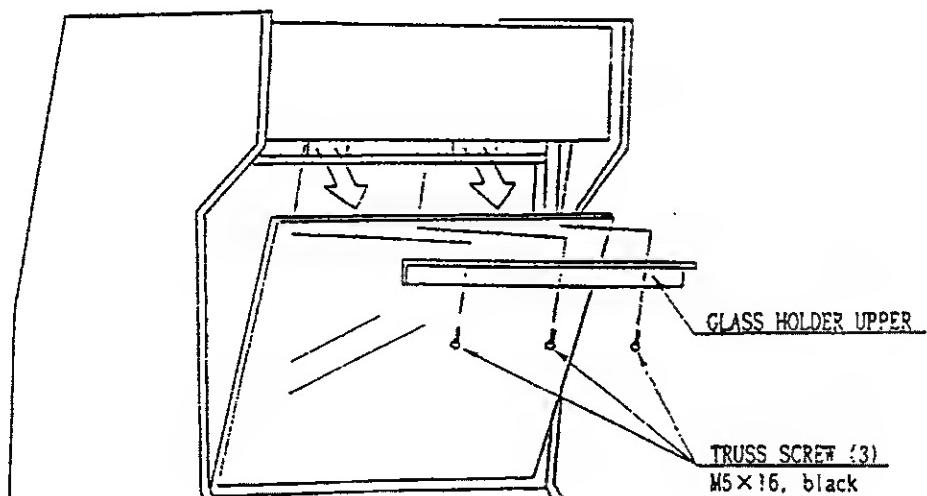
10. TROUBLESHOOTING

Should trouble occur, first check wiring connector connections.

PROBLEMS	CAUSE	COUNTERMEASURES
With Main SW ON, no activation	Power is not supplied.	Plug in correctly.
	Power supply/voltage is not correct.	Make sure that power supply/voltage is correct.
	Power supply unit fuse is blown due to momentary overload.	First remove the cause of overload, and then replace the power supply unit fuse (See Sec. 8). EP1007 5A SB 20mm 240V
	The SUB POWER SW of the power supply unit is OFF.	Turn it ON. (See Section 8).
The monitor screen sways or shrinks.	The power supply voltage is not correct.	Ensure that the power supply voltage is correct.
No sound is emitted.	Sound volume adjustment is not appropriate.	Adjust sound volume (see Section 8).
	Sound BD and speaker are malfunctioning.	Perform sound test to find and replace defective parts (See Section 8).
Controller operation is not satisfactory.	Due to environmental changes, etc., sighting became inappropriate.	Perform sighting adjustment in the test mode (see Section 3).
	Microswitch malfunctioning.	Replace the microswitch (see Section 9).
	Sensor BD malfunctioning.	Replace the sensor BD. (see Section 9).
The Fluorescent lamp does not light up.	The Fluorescent tube is burnt out.	Replace the Fluorescent tube with an FL 15W tube (refer to Scion 12).

11. GAME BOARD

15-1 REMOVING THE BOARD

To replace the IC BD (such as GAME BD, I/O BD, etc.) or to change DIP SW settings, take out the IC BD by using the following procedure:

① Turn the MAIN SW off.

② Take off the screw to unlock and open FRONT DOOR LEFT. Depending on cabinets, the front door may not have this screw.

③ The shield case is contained inside FRONT DOOR LEFT.

④ Disconnect all of the connectors which are connected to the shield case.

⑤ The shield case is secured to the base (wooden). Take off the 2 wing bolts which secure the base to the cabinet and take out the shield case together with the base.

⑥ Take off the 3 screws to remove the case lid. The game BD and I/O BD are contained in the shield case.

FRONT DOOR LEFT

SHIELD CASE
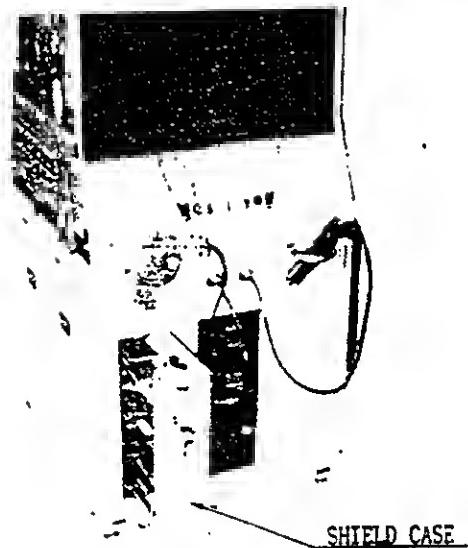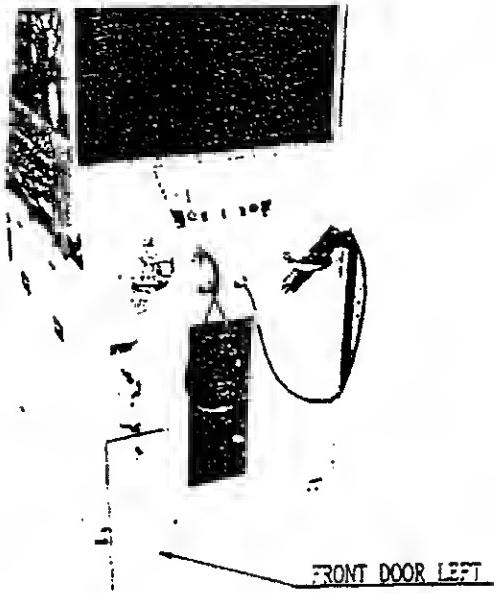
15-2 COMPOSITION OF GAME BOARD

When changing enemy characters and the bullet reloading method, use No. 1 and No. 2 of DIP SW 1 out of the 3 DIP SWes on the I/O BD.

> **CAUTION!**
> ● Make sure that, where NOT USED is specified, that particular DIP SW is always is set to OFF.
> ● When changing DIP SW setting, ensure that the power is OFF.

DIP SW 1 SETTING

DIP SW1		1	2	3 ~ 8
ENEMY CHARACTER	Human type (NORMAL)	OFF		NOT USED
	Robot type (ROBOT)	ON		
RELOADING	Point outside the screen and pull the trigger (NORMAL).		OFF	
	Automatically reloaded (AUTO RELOAD).		ON	

I/O BD VIRTUA COP (837-11130)

SCREW (4)
M3×30, w/flat &
spring washers

SCREW (3)
M3×10, using flat &
spring washers

Except for No. 1 and No. 2 of DIP
SW 1, set all of the switches to
OFF.

DIP SW1
DIP SW2
DIP SW3
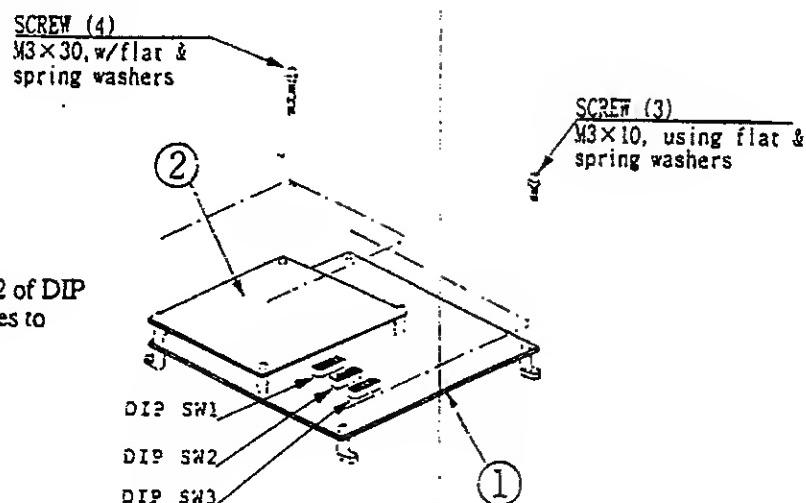
No.	PART No.	DESCRIPTION
1	837-10279-01	I/O BD COM (FULL MOUNT)
	837-10279-04	I/O BO COM (VIRTUA COP)
2	837-11131	I/O OPTION BO COP

GAME BD VIRTUA COP (833-11127)

SCREW(4)
M3×35, using flat &
spring washers

SCREW(7)
M3×75, using flat & spring
washers
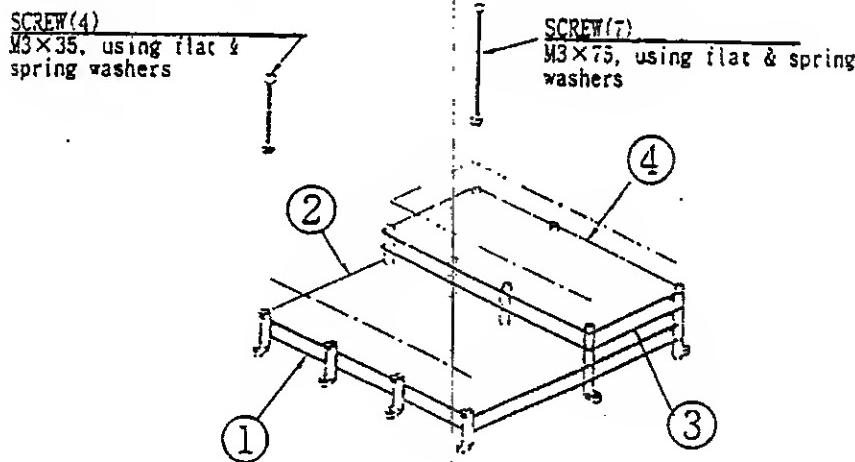
No.	PART No.	DESCRIPTION
1	837-10072-92	CGT VIDEO BD COM
2	837-10071-91-01	CGT CPU BO COM
	837-10071-91-02	CGT CPU BO COM
3	834-11128	ROM BD VIRTUA COP
4	837-525B	DUMMY BD

12. PARTS LIST

1. Top Assembly VCOP 2 CPT-0002UK

Seq No.	Part Number	Description	Qty
1	CPT-0200UK	ASSY ELEC U/R VCOP2 UK	1
2	AY0278	ASSY VTS SEGA SINGLE (NON Q-F)	1
3	CPT-1570UK	ASSY MONITOR 26 IN 29 UK	1
4	CPT-2200UK	ASSY CONT PANEL U/R VCOP2 UK	1
5	AY0215	ASSY FLOURESCENT LIGHT TRAY	1
6	CPT-2000UK	CONTROL UNIT 1P UK	1
7	CPT-2050UK	CONTROL UNIT 2P UK	1
8	CPT-1501UK	CABINET U/R VCOP2 UK	1
9	AY0019	CABINET AIR VENT ASSY	1
10	CPT-1508UK	BILLBOARD U/R VCOP2 UK	1
11	CPT-1520UK	BILLBOARD SASH UPPER VCOP2 UK	1
12	CPT-1521UK	BILLBOARD SASH LOWER VCOP2 UK	1
13	COP-1510UK	FRONT GLASS	1
14	AIN-1033UK	GLASS HOLDER UPPER	1
15	COP-1511UK	GLASS HOLDER LOWER	1
16	CPT-1522UK	WOODEN MASK VCOP2 UK	1
17	AIN-1044UK	MIRROR BRKT	1
18	AIN-1038UK	MIRROR	1
19	AIN-1040UK	MIRROR HOLDER	1
20	CPT-1502UK	FRONT DOOR UK	1
21	CPT-1524UK	BACK DOOR VCOP2 U/R UK	1
22	CPT-1502	STICKER CABI RIGHT VCOP2 UK	1
23	CPT-1503	STICKER CABI LEFT VCOP2 UK	1
24	COP-1506UK	WIRE COVER	1
25	CPT-1525UK	MONITOR SUPPORT BRKT	2
29	CPT-1523UK	COIN MECH SHIELD VCOP2 UK	1
30	CPT-0100UK	ASSY INSTALLATION KIT VCOP2 UK	1
31	CPT-2207UK	HOLSTER UK	1
32	CPT-2208UK	PLATE 3-M5 CRG BLT	3
33	CPT-2201-DUK	STICKER CONTROL PANEL EMBLEM	2
34	PK0029	CARTON VIRTUA COP 2 U/R	1
35	PK0030	PALLET VIRTUA COP U/R	1
101	421-7020UK	STICKER CAUTION FORK	2
102	PP1087	BOX CASH FOR MINI DOOR	1
103	OS1000	RUBBER EDGING FOR 6mm GLASS	0.8
104	OS1209	RUBBER EDGE STRIP FOR 3mm GLAS	0.8
105	OS1210	FOAM STRIP 14mm WIDE	0.8
106	421-7987	STICKER ELEC SPEC	1
107	421-7988-91	STICKER SERIAL NUMBER	2

108	SGM-4323UK	POLYETHYLENE COVER	1
109	LB1083	LABEL "FAILURE TO EARTH..."	1
110	LB1079	LABEL DLM SERIAL NUMBER	1
111	LB1046	LABEL TESTED FOR ELEC. SAFETY	1
112	LB1084	LABEL AC VOLTAGE SET TO:	1
113	LT1006	LAMP WEDGE-12V 1.2W	1
114	253-5396	CABINET HANDLE	4
201	FX0041	M4X30 MSCR POSI PAN BZP	6
202	FX0301	M4 WSHR 16OD FLT BZP	2
203	FX0243	M4 WSHR SPR BZP	3
204	FX0163	N8X1/2" S/TAP POSI FLG BZP	9
205	FX0273	M6X12 SET BZP	4
206	FX0255	M6 WSHR SPR BZP	4
207	FX0248	M6 WSHR FORM A FLT BZP	4
208	FX0326	M4X20 MCSR POSI CSK BZP	2
209	008-T00525-OC	M5X25 MSCR TMP PRF TH CRM	3
210	FS1033	M5 WSHR 19OD FLT CRM	3
211	FX0386	N8X1" S/TAP POSI CSK BZP	2
212	FX0417	M5X20 CRG BLT BNP	5
213	FX0009	M4 WSHR FORM A FLT BZP	1
214	FS1006	M5X20 MSCR SKT BH BNP	2
215	FS1027	M5 WSHR 19OD FLT BNP	2
216	FX0037	M4X12 MSCR POSI PAN BZP	7
217	FX0011	M4 NUT FLG SER BZP	2
218	008-T00430-0C	M4X30 MSCR TMP PRF TH CRM	1
219	FX0165	N8X1/2" S/TAP POSI FLG BNP	3
220	FX0131	M6X30 CRG BLT CRM	8
221	FX0013	M6 NUT FLG SER BZP	8
224	FX0302	M5 NUT FLG SER BZP	5
301	600-6657-106	LOOM FL / FAN CPT	1
302	600-6657-109	26" NANAO INTERFACE	1
303	LM9012	LOOM EARTH 200mm	1
304	LM9212	LOOM EARTH 400mm	1
305	LM9722	LOOM EARTH 1500mm	1
306	600-6657-104	LOOM MONITOR AC SUPPLY & VTS	1
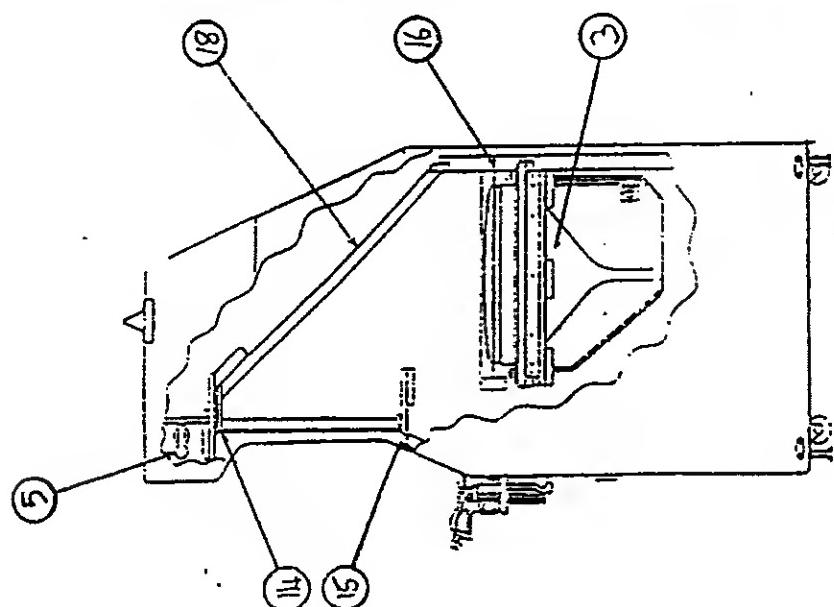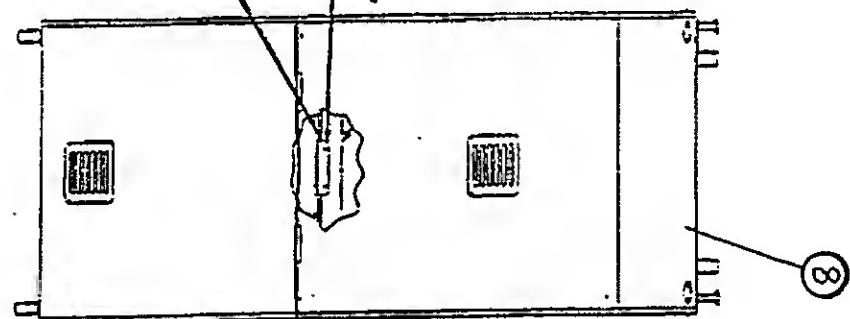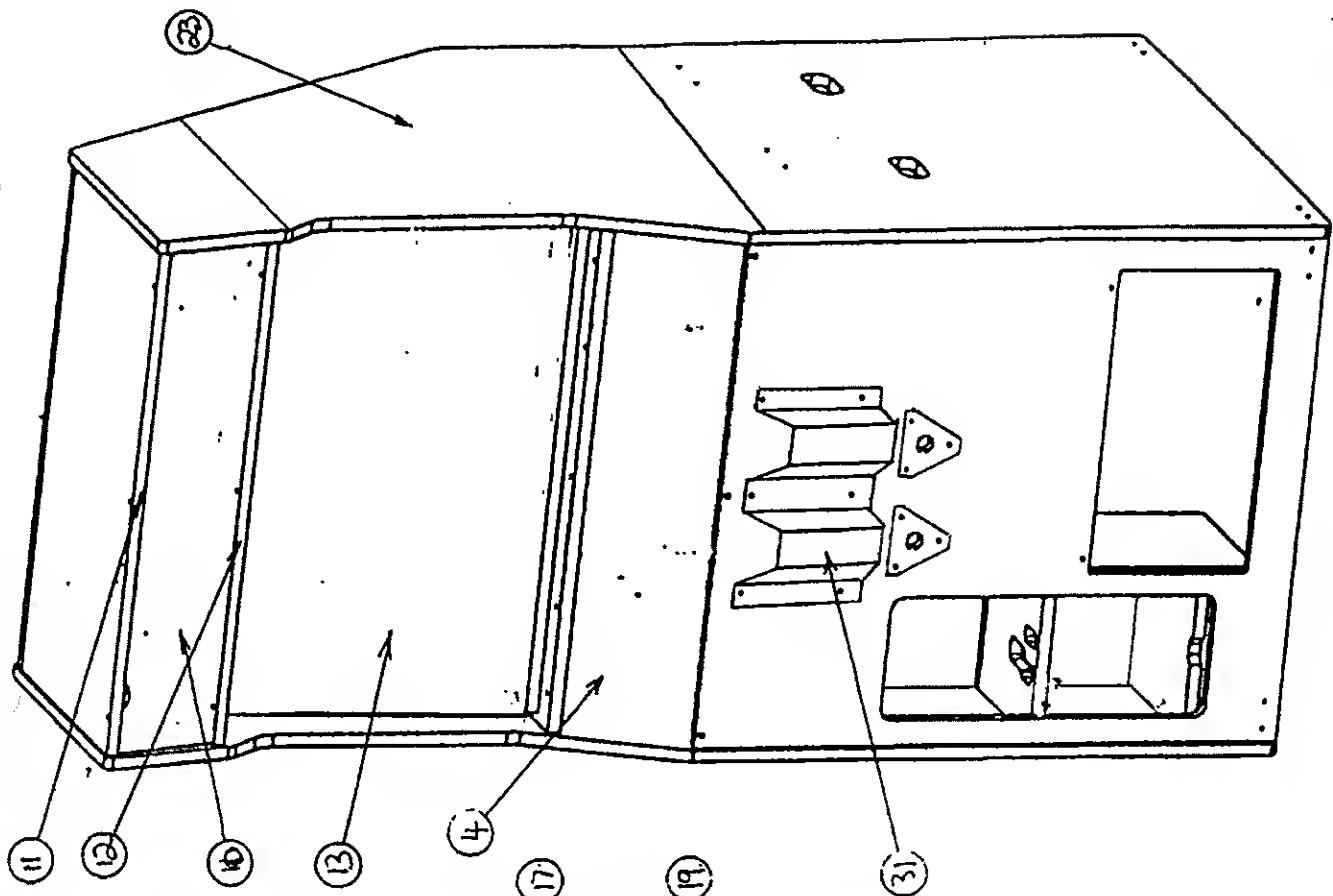
2. Installation Kit VCOP 2 CPT-0100UK

Seq No.	Part Number	Description	Qty
1	DO0047	OWNERS MANUAL VCOP2 UK	1
2	540-0006-01	WRENCH M4 TMP PRF	1
3	540-0007-01	WRENCH M5 TMP PRF	1
4	509-5080UK	SW MICRO TYPE	1
5	OS1019	SELF SEAL BAG 9X12.3/4	1
6	LT1006	LAMP WEDGE 12V 1.2W	1
7	EP1007	FUSE 5A 250Vac 20mm SB	1

3. Electronics Assembly VCOP2 CPT-0200UK

Seq No.	Part Number	Description	Qty.
1	CPT-0201UK	WOODEN BASE ELEC	1
2	105-5218	SHIELD CASE	1
3	105-5219-91	SHIELD CASE LID	1
4	833-12266	PEC GAME BOARD VCOP2	1
5	839-0827	PEC FILTER BD VCOP2	1
6	838-11650-10	PEC PWR AMP VCOP2	1
7	CPT-0202UK	AC BRKT VCOP2 U/R UK	1
8	MP1266	BRKT TRANSFORMER MOUNTING	4
10	837-12079	PEC GUN SENSOR BD VCOP2	1
11	838-10800	PEC CONN A SEGA	1
12	CPT-0203UK	BRKT GUN SENS BD	2
101	EP1335	SWITCHED MODE POWER SUPPLY	1
102	TX1071	TRANSFORMER VCOP2	1
103	SW1021	SWITCH ROCKER 250V AC E4666	1
104	SW1020	SWITCH ANTI CHEAT	1
105	EP1337	SOCKET IEC 10 AMP SCREW MOUNT	1
106	FN1011	FAN AXIAL 12V 80mm x 25mm(MAX)	1
107	FN1017	FAN GUARD 80mm	1
108	EP1007	FUSE 5A 250Vac 20mm SB	1
109	EP1308	FERRITE RING CORE	1
110	OS1098	CRIMP BELL END SMALL	2
111	EP1340	FILTER EMI 10A CORCOM	1
112	LB1000	LABEL 5A (AC BRKT FUSE)	1
113	LB1010	LABEL DLM ASSEMBLED	1
114	LB1011	LABEL DLM TESTED	1
115	LB1036	LABEL 240VAC YEL/BLK LARGE	1
116	PP1067	COVER PLASTIC POWER SUPPLY	1
117	OS1177	TAPE D/S PVC 50mm X 50 M ROLL	0.2
201	FX0011	M4 NUT FLG SER BZP	1
202	FX0163	N8X1/2" S/TAP POSI FLG BZP	6
203	FX0020	M3X8 TAPTITE POSI PAN BZP	9
204	FX0151	N4X1" S/TAP POSI PAN BZP	0
205	FX0021	M4X8 MSCR POSI PAN BZP	5
206	FX0241	M4 WSHR FORM C FLT BZP	4
207	FX0305	M3X30 MSCR POSI PAN BZP	4
208	FX0016	M3 WSHR FORM C FLT BZP	8
209	FX0239	M3 WSHR SPR BZP	4
210	FX0032	M3X20 MSCR POSI PAN BZP	4
301	LM1049	LOOM AC BKT VIRTUA FIGHTER	1
302	600-6657-102	LOOM SMPSU AC INT HAPP	1
303	600-6657-101	LOOM MAIN HARNESS VCOP2	1
304	LM1308	LOOM INT XFMR	1
306	LM9222	LOOM EARTH 400mm	1
307	LM9622	LOOM EARTH 1000mm	1
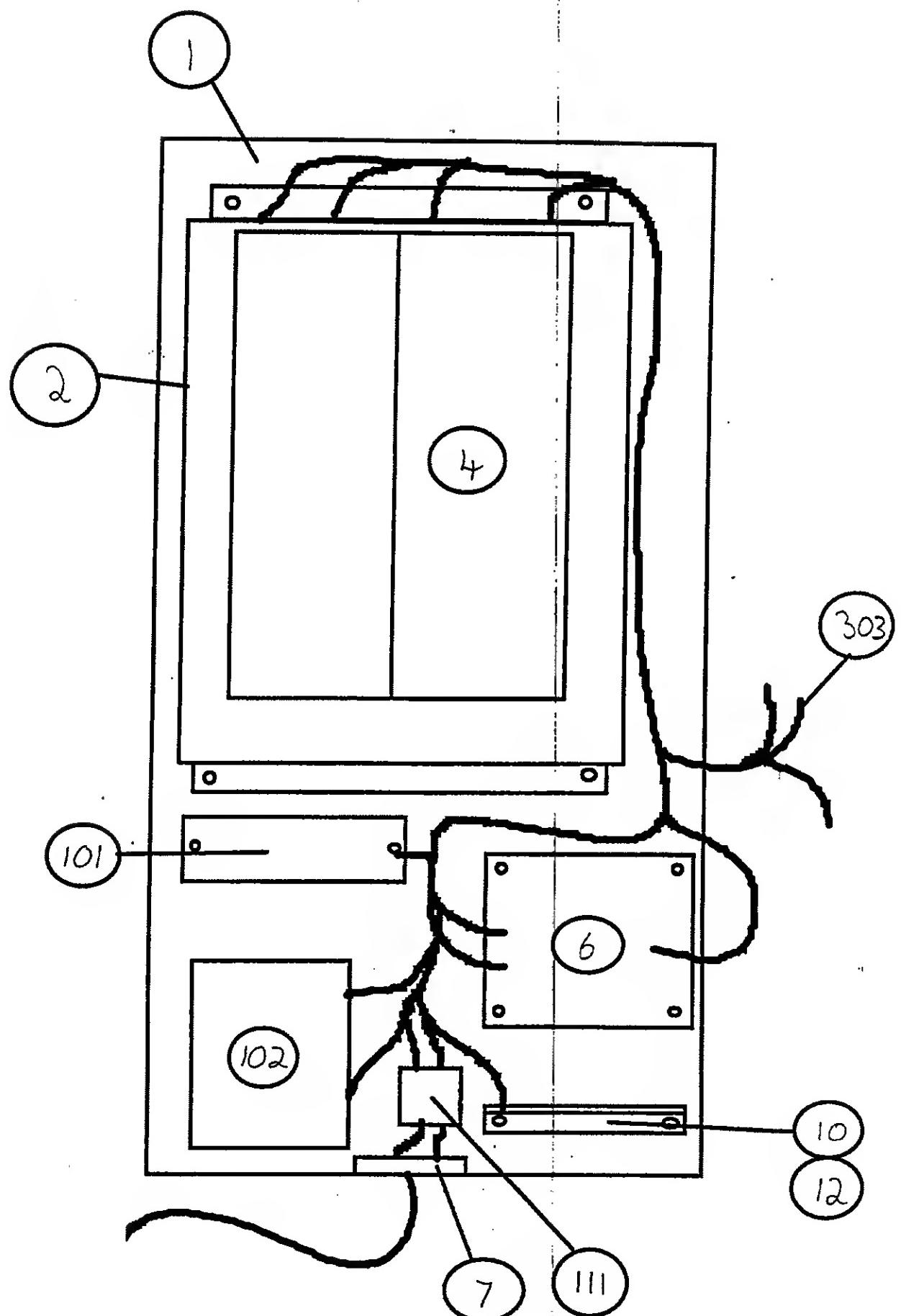
4. Monitor Assembly VCOP 2 CPT-1570UK

Seq No.	Part Number	Description	Qty
1	CPT-1571UK	MONITOR BRKT A (26 IN 29 CAB)	2
2	CPT-1572UK	MONITOR BRKT B (26 IN 29 CAB)	2
3	PP1000	BUSH FOR NANAO MONITOR	4
4	PP1001	COLLAR FOR NANAO MONITOR	4
101	MO1000	MONITOR 26 NANAO MED RES.	1
102	LB1034	LABEL "HIGH VOLTAGE" 64 X 38mm	1
103	OS1214	SPACER M4X16 ROUND NYLON	3
201	FX0012	M6 WSH 25OD FLAT BZP	4
202	FX0045	M5X12 MSCR POSI PAN BZP	8
203	FX0245	M5 WSHR FORM A FLT BZP	8
204	FX0246	M5 WSHR SPR BZP	8
205	FX0013	M6 NUT FLG SER BZP	4
206	FX0041	M4X30 MSCR POSI PAN BZP	3
207	FX0011	M4 NUT FLG SER BZP	3
301	LM9622	LOOM EARTH 1000mm	1
302	LM9522	LOOM EARTH 750mm	1

SECTION A-A
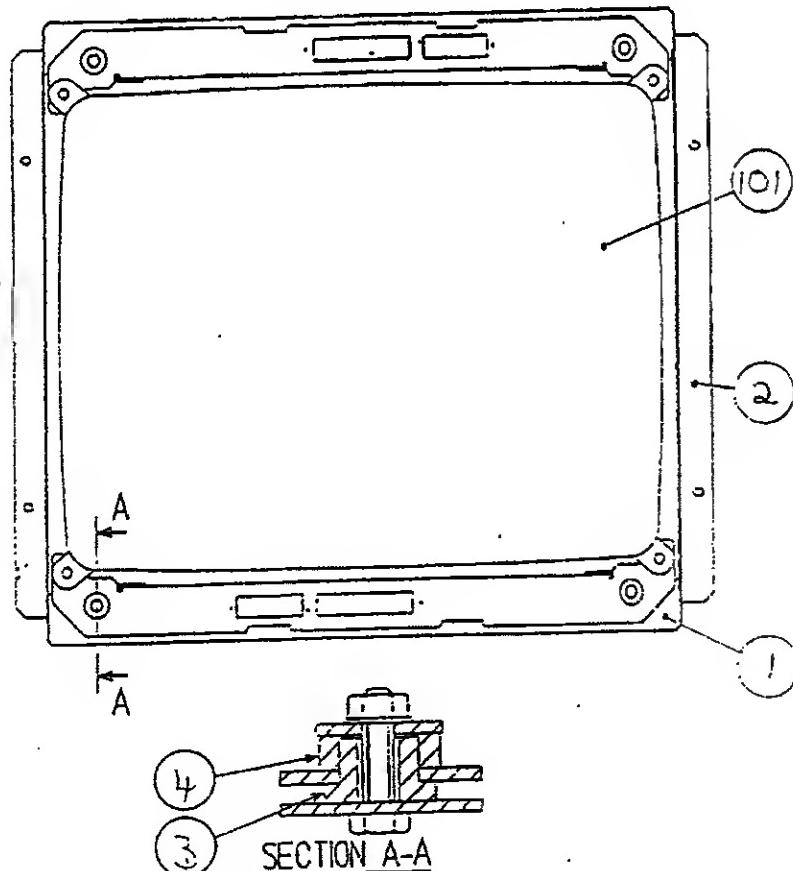
5. Control Unit 1P VCOP 2 CPT-2000UK *DCM 118*

SE 5672

Seq No.	Part Number	Description	Qty
1	COP-2020	SENSOR UNIT	1
2	COP-2005	STOPPER PIN	1
3	125-5124	TORSION SPRING	1
4	253-5404-01	COVER LEFT BLUE	1
5	253-5405-01	COVER RIGHT BLUE	1
6	253-5406-01	TRIGGER BLUE	1
7	CPT-2010UK	PROTECT TUBE L=1000MM (NBR)	1
8	421-7226-02-91	STICKER B LONG	1
9	CPT-2011UK	PLATE PROTECT TUBE UK	1
11	600-6657-107	LOOM GUN CPT *Not available*	1
12	600-6657-108	LOOM RGB ELEC BD (GUN SENSOR)	1
101	OS1142	CLIP "P" MINI	1
201	FX0405	M3X8 MSCR POSI PAN BNP	3
202	FX0145	N4X1/4" S/TAP POSI PAN BZP	1
203	FX0418	M3X25 MSCR POSI PAN BNP	6
204	FAS-500006	M3 NUT DOME BNP	9
205	FX0263	M3 WSHR FORM A FLT BZP	1
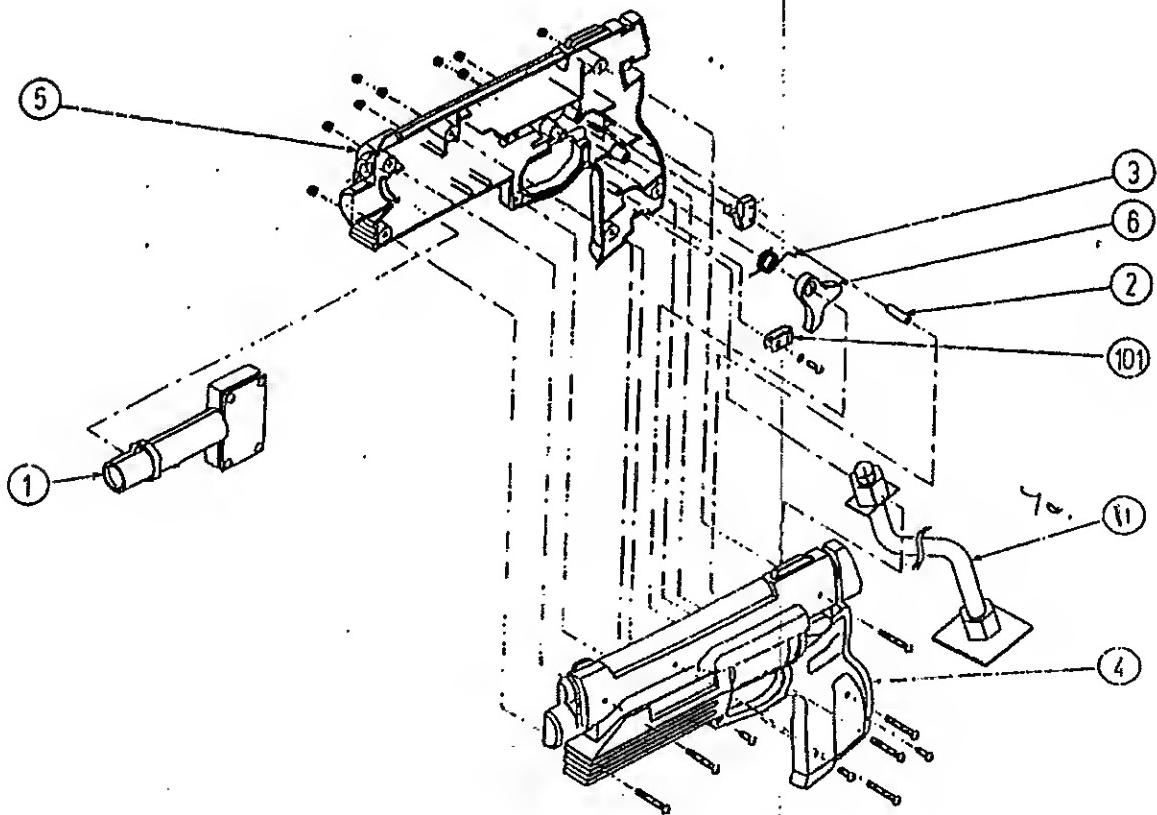
6. Control Unit 2P VCOP 2 CPT-2050UK *DLM 119*

Seq No.	Part Number	Description	Qty.
1	COP-2020	SENSOR UNIT	1
2	COP-2005	STOPPER PIN	1
3	125-5124	TORSION SPRING	1
4	253-5404-02	COVER LEFT RED	1
5	253-5405-02	COVER RIGHT RED	1
6	253-5406-02	TRIGGER RED	1
7	CPT-2010UK	PROTECT TUBE L=1000MM (NBR)	1
8	421-7226-18-91	STICKER R LONG	1
9	CPT-2011UK	PLATE PROTECT TUBE UK	1
11	600-6657-107	LOOM GUN CPT *Not available*	1
12	600-6657-108	LOOM RGB ELEC BD (GUN SENSOR)	1
101	OS1142	CLIP "P" MINI	1
201	FX0405	M3X8 MSCR POSI PAN BNP	3
202	FX0145	N4X1/4" S/TAP POSI PAN BZP	1
203	FX0418	M3X25 MSCR POSI PAN BNP	6
204	FAS-500006	M3 NUT DOME BNP	9
205	FX0263	M3 WSHR FORM A FLT BZP	1
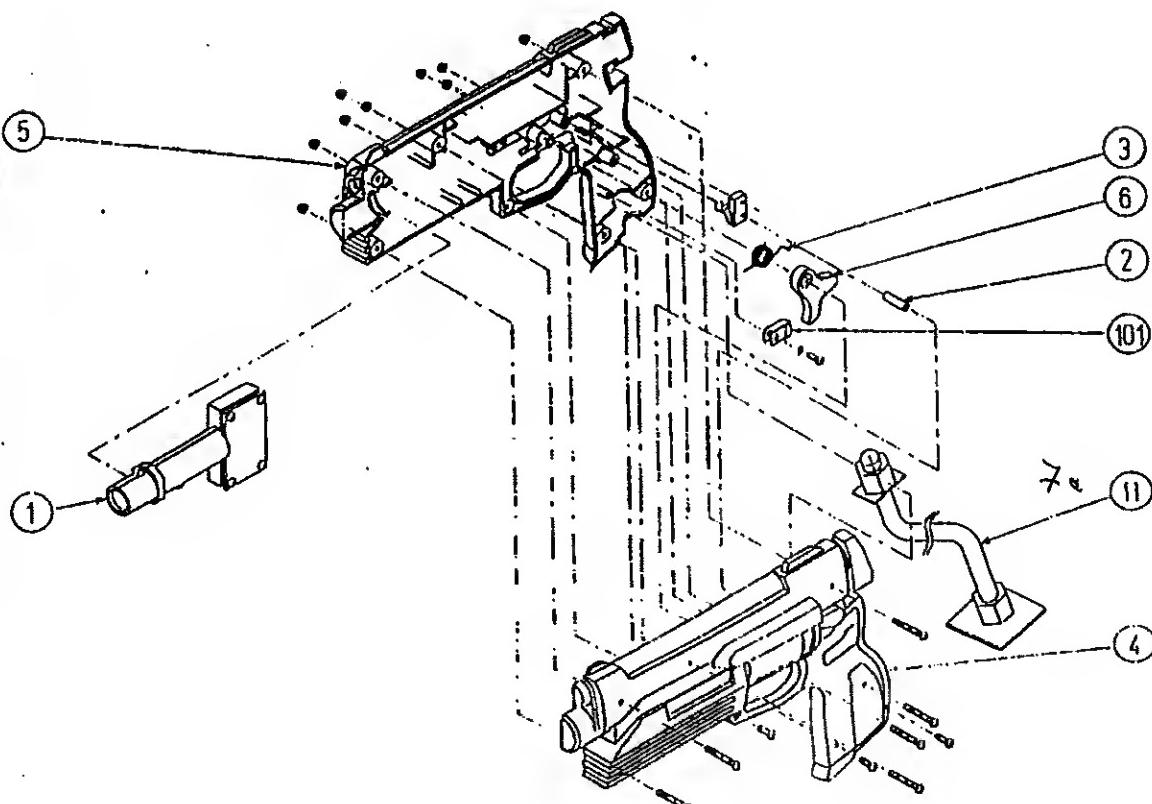
7. Control Panel Assembly VCOP 2 CPT-2200UK

Seq No.	Part Number	Description	Qty.
1	CPT-2201UK	CONTROL PANEL BASE VCOP2 UK	1
2	CPT-2202	SPEAKER NET	2
3	CPT-2203UK	SPEAKER BASE VCOP2 UK	2
4	CPT-2101 UK	INSTR PLATE U/R	1
6	CPT-2201-AUK	STICKER CONTROL PANEL A	1
7	CPT-2201-BUK	STICKER CONTROL PANEL B	1
8	CPT-2201-CUK	STICKER CONTROL PANEL STRIP	1
101	LS1020	SPEAKER 10mm 8 OHM 25W ASSY	2
102	LS1021	SPEAKER 4" AV 8ê 30W	2
103	509-5610-01BL	SW PB 30M BLUE W/L 1P 5V 3W	1
104	509-5610-02RE	SW PB 30M RED W/L 2P 5V 3W	1
105	421-5800-277	ORIGINAL SEAL VIRTUA COP 2	1
106	422-0549-01UK	PLAY INSTR SHT VCOP2	1
107	LB1010	LABEL DLM ASSEMBLED	1
201	FX0011	M4 NUT FLG SER BZP	9
202	008-T00408-OC	M4X8 MSCR TMP PRF TH CRM	5
203	FX0163	N8X1/2" S/TAP POSI FLG BZP	8
301	600-6657-105	LOOM START VCOP2	1
304	600-6657-103	LOOM SPEAKER	1
306	LM9611	LOOM EARTH 1000mm	1
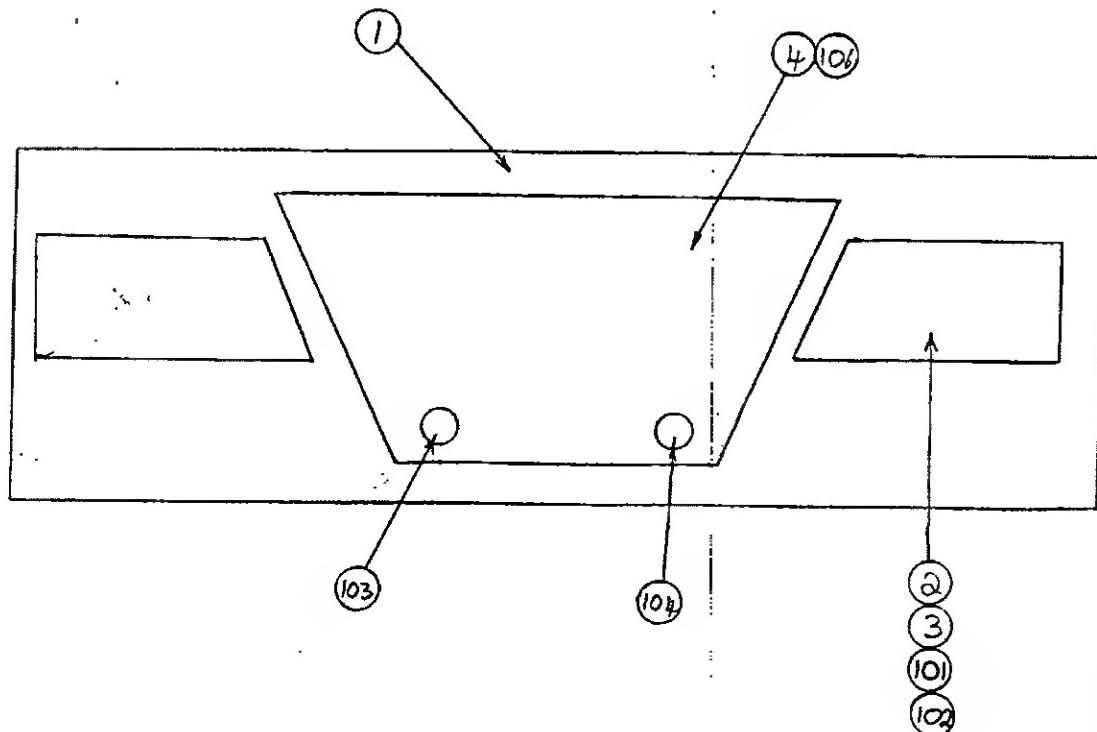
8. VTS Assembly VCOP 2 AY0278

Seq No	Part Number	Description	Qty
1	MP1296	VTS BRKT SEGA SINGLE (NON Q-F)	1
2	EP1003	COUNTER IMPULSE, PANEL W/CLIP	1
3	EP1004	PEC CREDIT BD KLINGON	1
4	SW1025	PUSHBUTTON MO'TY ACT - E0611	2
5	SW1099	SWITCH PB MOMENTARY 30/40AMP	1
6	EP1011	POT 4K7 CARBON	1
7	EP1018	KNOB 15MM DIA FOR 6.3MM SHAFT	1
101	OS1029	CABLE SLEEVE H30 BLACK	2
102	OS1034	SLEEVE H 20 BLACK	2
103	OS1181	CABLE TIE BASE 19mmSq SELF/ADH	3
104	OS1174	CABLE TIE, NYLON 100mm	3
105	OS1098	CRIMP BELL END SMALL	2
106	LB1010	LABEL DLM ASSEMBLED	1
107	LB1011	LABEL DLM TESTED	1
108	LB1006	LABEL VTS 1 SIL/BLK VERT LIST	1
109	LB1028	LABEL 110VAC MINI YELL/BLK	1
110	OS1055	TERM 1/4" RECEPT. RED F/INSUL	1
201	FX0029	M3X10 MSCR POSI PAN BZP	4
202	FX0263	M3 WSHR FORM A FLT BZP	4
301	LM1009	LOOM VTS BKT.VIRTUA FIGHTER	1
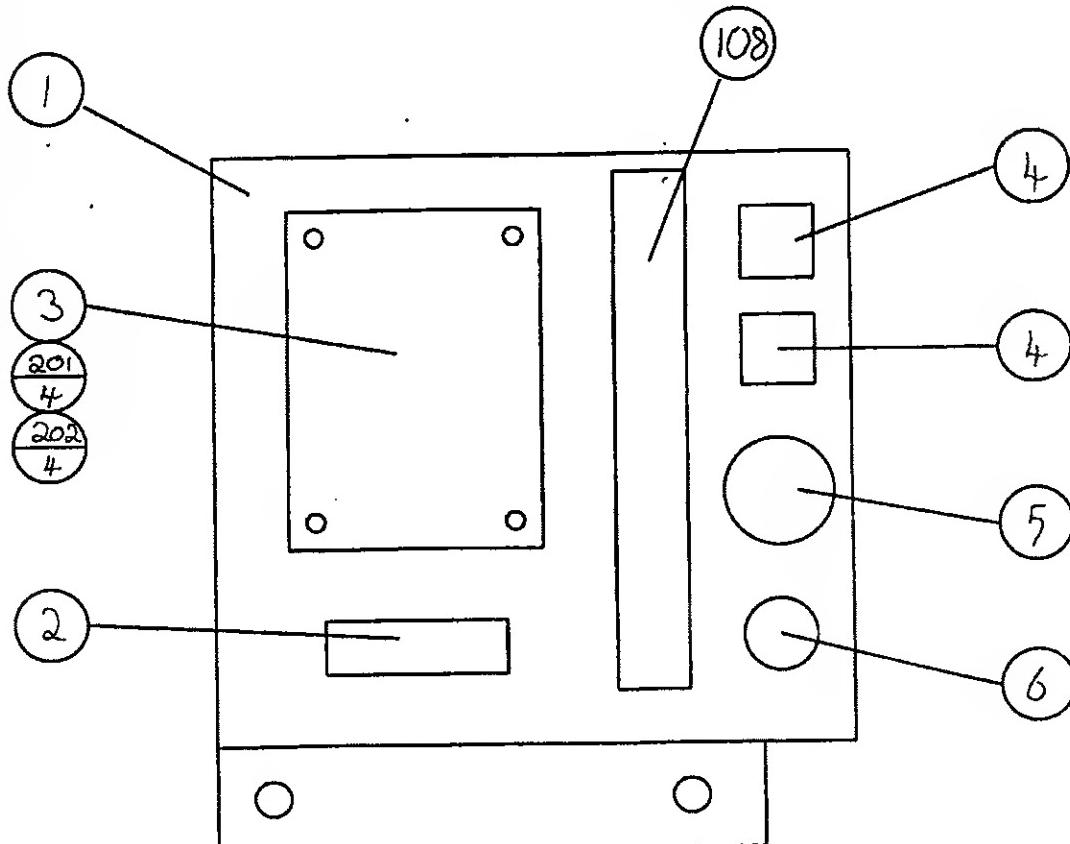
9. Flourescent Assembly VCOP 2 AY0215

Seq No.	Part Number	Description	Qty
1	LT1000	LIGHTING TRAY 15W E5025	1
2	LT1001	TUBE FLUORESCENT 15W E3017	1
3	FX0163	N8X1/2" S/TAP POSI FLG BZP	4
4	LM1048	LOOM STD INT FL	1
5	OS1174	CABLE TIE, NYLON 100mm	4
7	CB1059	LIGHTING BOARD VCOP POC	1
8	OS1208	CLIP TERRY 22mm DIA. POC	2
9	LT1042	FL STARTER 4-36 WATT POC	1
10	LB1010	LABEL DLM ASSEMBLED	1

TO AC UNIT
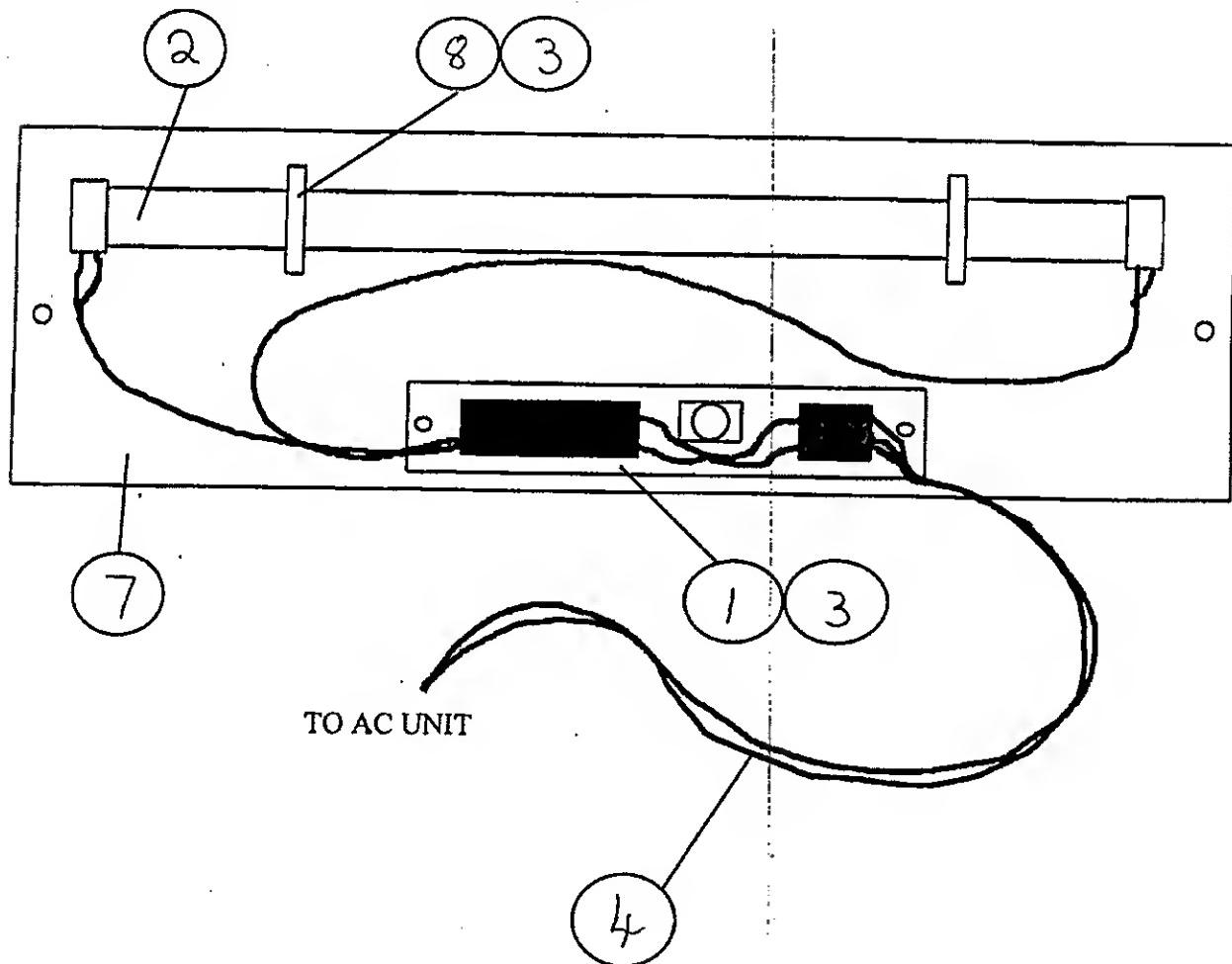
10. Air Vent Assembly VCOP 2 AY0019

Seq No	Part Number	Description	Qty.
1	MP1017B	VENT AIR BLACK	1
2	FN1000	FAN AXIAL 240V AC 120mm x 38mm	1
3	LM1050	LOOM STD INT FAN VENT	1
5	FX0320	N10X1/2" S/TAP HEX BZP	4
6	FX0245	M5 WSHR FORM A FLT BZP	4
7	FX0021	M4X8 MSCR POSI PAN BZP	1
8	FX0019	M4 WSHR S/PRF BZP	1
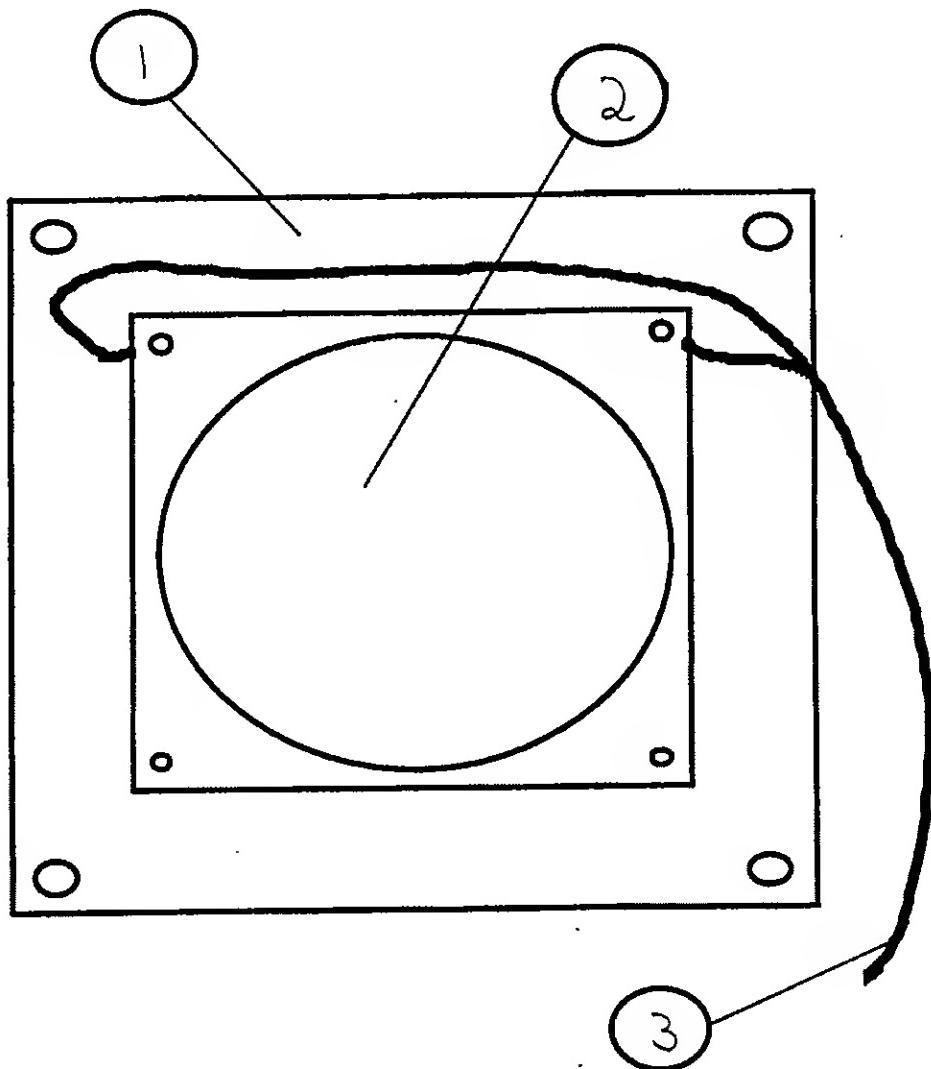
WIRE COLOUR CODE TABLE

THE WIRE COLOUR CODE IS AS FOLLOWS:

A	PINK
B	SKY BLUE
C	BROWN
D	PURPLE
E	LIOGHT GREEN

Wires other than those of any of the colours listed above will be displayed by 2 alphanumeric characters.

1	RED
2	BLUE
3	YELLOW
4	GREEN
5	WHITE
7	ORANGE
8	BLACK
9	GRAY

If the right hand side numeral of the code is 0, then the wire will be of a single colour shown by the left hand side numeral (see the list above).

Note 1:Ifthe right hand side alphanumeral is not 0, that particular wire has a spiral colour code. The left hand side character shows the base colour and the right hand side one, the spiral colour.

[Example] 51------------- WHITE/RED

WHITE   RED

Note 2:The character folowing the wire colour code indicates the size of the wire.

K:	AWG18, UL1015
L:	AWG20, UL1007
None	AWG22, UL1007

COIN MECH INSTALLATION AND CREDIT BOARD SETUP

Game credits between the Coin Mech and the game board for the Virtua Cop 2 machine are controlled by a *Klingon* board. This electronic circuit allows the price of play to be set for a range of different countries. These functions are set on Dual In Line PCB mounted switches.

DIL-2 is used to set the currency (or coin ratio) and DIL-1 the price of play. Refer to the Tables on the following pages for the correct settings for your environment.

The *Klingon* board pictured in Fig 8 is mounted on the VTS Bracket within the Coin Chute Tower.

The *Klingon* board is connected to the coin validator and lamps via a dedicated wiring harness depending upon the coin validator used:

Wiring Harness		Validator	
LM1006	-	Coin Controls	(15 way connector)
LM1007	-	Mars	(13 way connector)
LM1008	-	Mechanical	See note 2
-	-	NRI	See note 1

Notes

1. If NRI mechs are to be used, these should be ordered with the highest denomination coin on coin path #1 and the lowest denomination on coin path #4. The *Klingon* board should be then be set up for either the UK or Switzerland settings. A minimum connecting lead length of 600mm is required.
2. Mechanical coin mechs may be connected in parallel allowing two identical mechs to be fitted.

Klingon Credit Board Option Settings

DIL Switch 2 (under IC socket)

Coin Controls:
Mars:

SW1	SW2	SW3	SW4	OPTIONS	COIN 1 F	COIN 2 E	COIN 3 D	COIN 4 C
OFF	OFF	OFF		UK Coin Setting	£1	50p	20p	10p
ON	OFF	OFF		Belgium Coin Setting	n/u	50Bf	20Bf	25Pst
OFF	ON	OFF		Spain Coin Setting	100Pst	50 Pst	n/u	5 Pst
ON	ON	OFF		German Coin setting using NRI				
OFF	OFF	ON		Holland Coin Setting	n/u	5G	2.5G	1G
ON	OFF	ON		Portugal Coin Setting	100Esu	50 Esu	n/u	n/u
OFF	ON	ON		Austria Coin Setting	20	10	5	1
ON	ON	ON		Switzerland Coin Setting	5Sf	2Sf	1Sf	n/u
			OFF	Direct mode				
			ON	2 Channel Mode				

Set DIL switches (DIL-1) SW-1 to SW-5 according to the option settings found in the relevant Price Of Play Settings Table on the following pages.

Set DIL switches (DIL-2) on the *Klingon* board located under the IC socket as shown in the table above. SW-4 must always be set 'ON' as the game board only operates in common mode. Care must be exercised when removing IC-1 so as not to damage its lead-outs pins. After setting the switches return the IC to its socket with the package indent mark adjacent to the board edge.
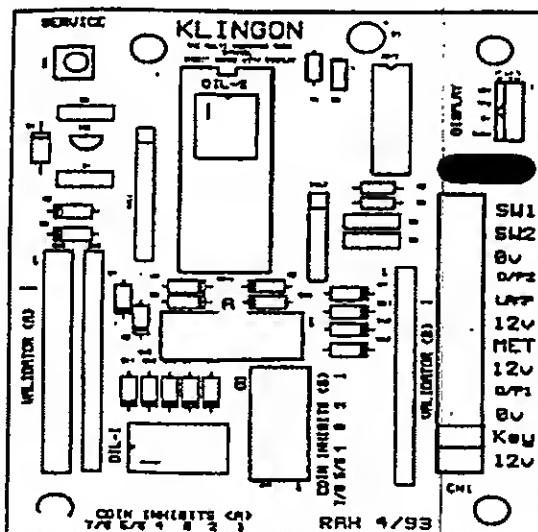
Fig. 8 THE 'KLINGON' CREDIT BOARD

PRICE OF PLAY SETTINGS FOR THE UK

			DIP SWITCH				
			1	2	3	4	5
10p Play	50p = 5	£1 = 10	OFF	OFF	OFF	OFF	OFF
10p Play	50p = 5	£1 = 11	ON	OFF	OFF	OFF	OFF
10p Play	50p = 6	£1 = 12	OFF	ON	OFF	OFF	OFF
20p Play	50p = 2½	£1 = 5	ON	ON	OFF	OFF	OFF
20p Play	50p = 3	£1 = 6	OFF	OFF	ON	OFF	OFF
20p Play	50p = 3	£1 = 7	ON	OFF	ON	OFF	OFF
30p Play	50p = 1 2/3	£1 = 3 1/3	OFF	ON	ON	OFF	OFF
30p Play	50p = 2	£1 = 4	ON	ON	ON	OFF	OFF
30p Play	50p = 2	£1 = 5	OFF	OFF	OFF	ON	OFF
40p Play	50p = 1¼	£1 = 2½	ON	OFF	OFF	ON	OFF
40p Play	50p = 1¼	£1 = 3	OFF	ON	OFF	ON	OFF
50p Play	50p = 1	£1 = 2	ON	ON	OFF	ON	OFF
50p Play	50p = 1	£1 = 3	OFF	OFF	ON	ON	OFF
60p Play	50p = 5/6	£1 = 1 2/5	ON	OFF	ON	ON	OFF
60p Play	50P = 5/6	£1 = 2·	OFF	ON	ON	ON	OFF
80p Play	50p = 5/8	£1 = 1¼	ON	ON	ON	ON	OFF
£1 Play.	£1 = ½	£1 = 1	OFF	OFF	OFF	OFF	ON
£1 Play	£1 = ½ £1 = 1 £1 = 3		ON	OFF	OFF	OFF	ON
£2 Play	50p = ¼	£1 = ½	OFF	ON	OFF	OFF	ON
£2 Play	50p = ¼ £1 = ½ £1 = 3		ON	ON	OFF	OFF	ON
£3 Play	50p = ¼ £1 = ½ £5 = 3		ON	ON	OFF	OFF	ON
£3 Play	NO BONTSES		OFF	OFF	ON	OFF	ON
£3 Play	-	£5 = 3	ON	OFF	ON	OFF	ON
£5 Play	-	·	OFF	ON	ON	OFF	ON
£5 Play	-	£10 = 3	ON	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR SPAIN

			DIP SWITCH				
			1	2	3	4	5
25Pst Play	50Pst = 2	100Pst = 4	OFF	OFF	OFF	OFF	OFF
25Pst Play	50Pst = 2	100Pst = 5	ON	OFF	OFF	OFF	OFF
			OFF	ON	OFF	OFF	OFF
50Pst Play	100Pst = 2	-	ON	ON	OFF	OFF	OFF
50pst Play	100pst = 3	-	OFF	OFF	ON	OFF	OFF
50Pst Play	100Pst = 3	200Pst = 7	ON	OFF	ON	OFF	OFF
75Pst = Play	100Pst = 2/3	-	OFF	ON	ON	OFF	OFF
75Pst Play	100Pst = 2/3	200Pst = 3	ON	ON	ON	OFF	OFF
75Pst Play	200Pst = 3	400Pst = 7	OFF	OFF	OFF	ON	OFF
100Pst Play	-	-	ON	OFF	OFF	ON	OFF
100Pst Play	200Pst = 3	-	OFF	ON	OFF	ON	OFF
200Pst Play	-	-	ON	ON	OFF	ON	OFF
200Pst Play	500Pst = 3	-	OFF	OFF	ON	ON	OFF
300Pst Play	-	-	ON	OFF	ON	ON	OFF
300Pst Play	500Pst = 2	-	OFF	ON	ON	ON	OFF
400Pst Play	-	-	ON	ON	ON	ON	OFF
400Pst Play	1000Pst =	-	OFF	OFF	OFF	OFF	ON
			ON	OFF	OFF	OFF	ON
			OFF	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON
			ON	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

[Coin Metering: 1 Pulse = 25Pst]

PRICE OF PLAY SETTINGS FOR PORTUGAL

			DIP SWITCH				
			1	2	3	4	5
10Esc Play	50Esc = 5	100Esc = 10	OFF	OFF	OFF	OFF	OFF
10Esc Play	50Esc = 5	100Esc = 11	ON	OFF	OFF	OFF	OFF
10Esc Play	50Esc = 6	100Esc = 12	OFF	ON	OFF	OFF	OFF
20Esc Play	50Esc = 2½	100Esc = 5	ON	ON	OFF	OFF	OFF
20Esc Play	50Esc = 3	100Esc = 6	OFF	OFF	ON	OFF	OFF
20Esc Play	50Esc = 3	100Esc = 7	ON	OFF	ON	OFF	OFF
30Esc Play	50Esc = 1 2/3	100Esc = 1 1/3	OFF	ON	ON	OFF	OFF
30Esc Play	50Esc = 2	100Esc = 4	ON	ON	ON	OFF	OFF
30Esc Play	50Esc = 2	100Esc = 5	OFF	OFF	OFF	ON	OFF
40Esc Play	50Esc = 1 ¼	100esc = 2½	ON	OFF	OFF	ON	OFF
40Esc Play	50Esc = 1 ¼	100Esc = 3	OFF	ON	OFF	ON	OFF
50Esc Play	50Esc = 1	100Esc = 2	ON	ON	OFF	ON	OFF
50Esc Play	50Esc = 1	100Esc = 3	OFF	OFF	ON	ON	OFF
60Esc Play	50Esc = 5/6	100Esc = 1 2/5	ON	OFF	ON	ON	OFF
60Esc Play	50Esc = 5/6	100Esc = 2	OFF	ON	ON	ON	OFF
80Esc Play	50Esc = 5/8	100Esc = 1¼	ON	ON	ON	ON	OFF
100Esc Play	50Esc = ½	100Esc = 1	OFF	OFF	OFF	OFF	ON
100Esc Play	50Esc = ½ 100Esc = 1 200Esc = 3		ON	OFF	OFF	OFF	ON
200Esc Play	50Esc = ¼	100Esc = ½	OFF	ON	OFF	OFF	ON
200Esc Play	50Esc = ¼ 100Esc = ½ 500Esc = 3		ON	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON
			ON	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR AUSTRIA

| | | | DIP SWITCH | | | | |
			1	2	3	4	5
1Sch Play	5Sch = 5	10Sch = 10	OFF	OFF	OFF	OFF	OFF
1Sch Play	5Sch = 5	10Rch = 11	ON	OFF	OFF	OFF	OFF
1Sch Play	5Sch = 6	10Sch = 12	OFF	ON	OFF	OFF	OFF
2Sch Play	5Sch = 2½	10Sch = 5	ON	ON	OFF	OFF	OFF
2Sch Play	5Sch = 3	10Sch = 6	OFF	OFF	ON	OFF	OFF
2Sch Play	5Sch = 3	10Sch = 7	ON	OFF	ON	OFF	OFF
3Sch Play	5Sch = 1 2/3	10Sch = 2 1/3	OFF	ON	ON	OFF	OFF
3Sch Play	5Sch = 2	10Sch = 4	ON	ON	ON	OFF	OFF
3Sch Play	5Sch = 2	10Sch = 5	OFF	OFF	OFF	ON	OFF
4Sch Play	5Sch = 1¼	10Sch = 2½	ON	OFF	OFF	ON	OFF
4Sch Play	5Sch = 1¼	10Sch = 3	OFF	ON	OFF	ON	OFF
5Sch Play	5Sch = 1	10Sch = 2	ON	ON	OFF	ON	OFF
5Sch Play	5Sch = 1	10Sch = 3	OFF	OFF	ON	ON	OFF
6Sch Play	5Sch = 5/6	10Sch = 1 2/5	ON	OFF	ON	ON	OFF
6Sch Play	5Sch = 5/6	10Sch = 2	OFF	ON	ON	ON	OFF
8Sch Play	5Sch = 5/8	10Sch = 1¼	ON	ON	ON	ON	OFF
10Sch Play	5Sch = ½	10Sch = 1	OFF	OFF	OFF	OFF	ON
10Sch Play	5Sch = ½ 10Sch = 1	20Sch = 3	ON	OFF	OFF	OFF	ON
20Sch Play	5Sch = ¼	10Sch = ½	OFF	ON	OFF	OFF	ON
20Sch Play	5Sch = ¼ 10Sch = ½	50Sch = 3	ON	ON	OFF	OFF	ON
30Sch Play	NO BONUSES		OFF	OFF	ON	OFF	ON
30Sch Play	50Sch = 3	-	ON	OFF	ON	OFF	ON
50Sch Play	-	-	OFF	ON	ON	OFF	ON
50Sch Play	100Sch = 3	-	ON	ON	ON	OFF	ON
FREE PLAY OPTION	-		ON	ON	ON	ON	ON

Coin Assignement: Coin 1 = 20Sch, Coin 2 = 10Sch, Coin 3 = 5Sch, Coin 4 = 1Sch

PRICE OF PLAY SETTINGS FOR FRANCE / SWITZERLAND

| | | | DIP SWITCH | | | | |
			1	2	3	4	5
1F Play	5F = 5	10F = 10	OFF	OFF	OFF	OFF	OFF
1F Play	5F = 5	10F = 11	ON	OFF	OFF	OFF	OFF
1F Play	5F = 6	10F = 12	OFF	ON	OFF	OFF	OFF
2F Play	5F = 2½	10F = 5	ON	ON	OFF	OFF	OFF
2F Play	5F = 3	10F = 6	OFF	OFF	ON	OFF	OFF
2F Play	5F = 3	10F = 7	ON	OFF	ON	OFF	OFF
3F Play	5F = 1 2/3	10F = 3 1/3	OFF	ON	ON	OFF	OFF
3F Play	5F = 2	10F = 4	ON	ON	ON	OFF	OFF
3F Play	5F = 2	10F = 5	OFF	OFF	OFF	ON	OFF
4F Play	5F = 1¼	10F = 2½	ON	OFF	OFF	ON	OFF
4F Play	5F = 1¼	10F = 3	OFF	ON	OFF	ON	OFF
5F Play	5F = 1	10F = 2	ON	ON	OFF	ON	OFF
5F Play	5F = 1	10F = 3	OFF	OFF	ON	ON	OFF
6F Play	5F = 5/6	10F = 1 2/5	ON	OFF	ON	ON	OFF
6F Play	5F = 5/6	10F = 2	OFF	ON	ON	ON	OFF
8F Play	5F = 5/8	10F = 1¼	ON	ON	ON	ON	OFF
10F Play	5F = ½	10F = 1	OFF	OFF	OFF	OFF	ON
10F Play	5F = ½ 10F = 1 20F = 3		ON	OFF	OFF	OFF	ON
20F Play	5F = ¼	10F = ½	OFF	ON	OFF	OFF	ON
20F Play	5F = ¼ 10F = ½ 50F = 3		ON	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON
			ON	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

PRICE OF PLAY SETTINGS FOR BELGIUM

				DIP	SWITCH		
			_1_	_2_	_3_	_4_	_5_
5F Play	20F = 4	50F = 10	OFF	OFF	OFF	OFF	OFF
5F Play	20F = 4	50F = 11	ON	OFF	OFF	OFF	OFF
5F Play	20F = 5	50F = 12	OFF	ON	OFF	OFF	OFF
10F Play	20F = 2	50F = 5	ON	ON	OFF	OFF	OFF
10F Play	20F = 2	50F = 5	OFF	OFF	ON	OFF	OFF
10F Play	20F = 3	50F = 7	ON	OFF	ON	OFF	OFF
15F Play	20F = 1 1/3	50F = 3 1/3	OFF	ON	ON	OFF	OFF
15F Play	20F = 1 1/3	50F = 4	ON	ON	ON	OFF	OFF
15F Play	20F = 2	50F = 5	OFF	OFF	OFF	ON	OFF
20F Play		50F = 2½	ON	OFF	OFF	ON	OFF
20F Play		50F = 3	OFF	ON	OFF	ON	OFF
20F Play	50F = 3	100F = 7	ON	ON	OFF	ON	OFF
25F Play	20F = 4/5	50F = 2	OFF	OFF	ON	ON	OFF
25F Play	20F = 4/5 50F = 2	100F = 5	ON	OFF	ON	ON	OFF
25F Play	20F = 4/5 50F = 3	100F = 6	OFF	ON	ON	ON	OFF
30F Play	20F = 2/3	50F = 1½	ON	ON	ON	ON	OFF
30F Play	20F = 2/3 50F = 1 2/3	100F = 4	OFF	OFF	OFF	OFF	ON
30F Play	20F = 2/3 50F = 2	100F = 4	ON	OFF	OFF	OFF	ON
40F Play	20F = ½	50F = 1¼	OFF	ON	OFF	OFF	ON
40F Play	20F = ½ 50F = 2¼	100F = 3	ON	ON	OFF	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON
FREE PLAY OPTION			ON	ON	ON	ON	ON

Meter Operates on 1BF = 1 Pulse
  Coin 1 = 50F, Coin 2 = 20F, Coin 3 = 5F, Coin 4 = 1F

PRICE OF PLAY SETTINGS FOR HOLLAND

			DIP SWITCH				
			1	2	3	4	5
1G Play	NO BONUS		OFF	OFF	OFF	OFF	OFF
1G Play	2.5G = 3	5G = 6	ON	OFF	OFF	OFF	OFF
1G Play	2.5G = 3	5G = 7	OFF	ON	OFF	OFF	OFF
2G Play	NO BONUS		ON	ON	OFF	OFF	OFF
2G Play	5G = 3		OFF	OFF	ON	OFF	OFF
2G Play	5G = 3	10G = 7	ON	OFF	ON	OFF	OFF
3G Play	NO BONUS		OFF	ON	ON	OFF	OFF
3G Play	5G = 2		ON	ON	ON	OFF	OFF
3G = Play	5G = 2	10G = 5	OFF	OFF	OFF	ON	OFF
4G Play	NO BONUS		ON	OFF	OFF	ON	OFF
4G Play	10G = 3		OFF	ON	OFF	ON	OFF
5G Play	NO BONUS		ON	ON	OFF	ON	OFF
5G Play	10G = 3		OFF	OFF	ON	ON	OFF
6G Play	NO BONUS		ON	OFF	ON	ON	OFF
6G Play	15G = 3		OFF	ON	ON	ON	OFF
8G Play	NO BONUS		ON	ON	ON	ON	OFF
8G Play	20G = 3		OFF	OFF	OFF	OFF	ON
10G Play	NO BONUS		ON	OFF	OFF	OFF	ON
10G Play	20G = 3		OFF	ON	OFF	OFF	ON
			ON	ON	OFP	OFF	ON
			ON	ON	OFF	OFF	ON
			OFF	OFF	ON	OFF	ON
			ON	OFF	ON	OFF	ON
			OFF	ON	ON	OFF	ON

FREE PLAY OPTION

			ON	ON	ON	ON	ON

1 Meter Pulse = 0.5G

Coin 1 = N/U,   Coin 2 = 5G,   Coin 3 = 2.5G,   Coin 4 = 1G

VIRTUA COP 2.